



## Traffic Volumes Monthly Report August 2009

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#### Revision Schedule

| Rev. No | Date     | Description | Prepared by | Reviewed by  | Approved by  |
|---------|----------|-------------|-------------|--------------|--------------|
| 1       | 3/9/2009 | First draft | Gerald Wen  | Neil Beckett | Neil Beckett |
|         |          |             |             |              |              |
|         |          |             |             |              |              |

# Overview

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## Summary

The purpose of this document is to report on the monthly traffic volume changes. This report also covers annual traffic trends for the period of 1989 to 2008.

The overall annual trend in traffic growth, up to 2007, has continued to increase. There has been a reduction observed in 2008.

In August 2009, compared with August 2008, the monthly average daily traffic (MADT) for all vehicles has increased by 3.9 percent; while the MADT for heavy vehicles has reduced by 2.3 percent.

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**In this report** This report contains the following topics.

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# Technical Notes

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**What is MADT and AADT**

Monthly Average Daily Traffic (MADT) is the average of daily traffic volume measured in a given month.

A more commonly reported statistic term is Annual Average Daily Traffic (AADT), which measures the average of daily traffic volume over a given year.

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**Purpose**

Monthly Average Daily Traffic (MADT) reporting enables us to provide a month-by-month indication of traffic trends, and to allow the effects of specific events (e.g. storms, fuel price shifts, economy, etc.) to be monitored.

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**Sample coverage**

There are 87 telemetry<sup>1</sup> sites in use on the state highway network to provide this traffic data.

The table below shows the number of sites in each NZ Transport Agency region. These numbers represent the sample sizes that are used to report the regional MADT results.

| <b>NZ Transport Agency Region</b>                    | <b>Number of Telemetry Sites</b> |
|--|----------------------------------|
| Northland and Auckland                               | 18                               |
| Waikato and Bay of Plenty                            | 19                               |
| Taranaki, Manawatu-Wanganui, Hawkes Bay and Gisborne | 15                               |
| Wellington, Nelson, Marlborough and Tasman           | 13                               |
| Canterbury and West Coast                            | 11                               |
| Otago and Southland                                  | 11                               |

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**Sources of variation in MADT**

The number of weekends in a specific month can affect the MADT comparison between years. Also, public holidays that can occur in different months can also affect the ability for direct comparison between years. This report does not attempt to compensate for these variations.

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<sup>1</sup> Telemetry sites are continuously monitored 24/7.

# Key Results

The annual national State Highway Traffic Index <sup>1</sup> measures the rate of traffic growth since 1989.

## Overall

Since 1989, traffic has generally grown across the network. From 1999, the index for heavy vehicles starts to increase at a higher rate than the index for all vehicles. In 2006 there was a minor reduction in cars and light vehicles whilst the number of heavy vehicles showed negligible growth followed by both indexes reaching a peak in 2007.

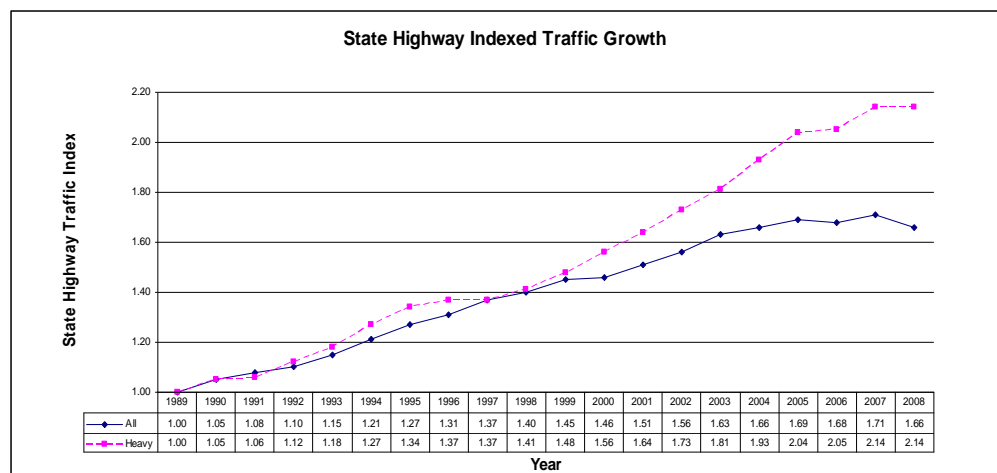
## 2008 All Vehicles

In 2008, the all vehicle index returned to similar levels to those observed in 2005 and 2006.

## 2008 Heavy Vehicles

In 2008, the heavy vehicle index remained at the same level as observed in the previous year.

## National growth (annual)



<sup>1</sup> Weighted average traffic across the 87 telemetry sites

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**Results:  
Monthly  
traffic at key  
sites**

Five key sites have been selected to represent five main centres in NZ.

The MADT values for August 2009, August 2008 and percentage of difference compared are reported in the table below.

Note the MADT values include all vehicles.

| Site  | City         | MADT<br>(All Vehicles)<br>Aug-08 | MADT<br>(All Vehicles)<br>Aug-09 | % Change |
|---|--------------|----------------------------------|----------------------------------|----------|
| Auckland<br>harbour<br>bridge (SH1)             | Auckland     | 150276                           | 157638                           | 5%       |
| Karapiro<br>(SH1)                               | Hamilton     | 13065                            | 13234                            | 1%       |
| Ngauranga<br>Interchange<br>(SH 1 and SH<br>2 ) | Wellington   | 83893                            | 87604                            | 4%       |
| DUNSANDEL<br>(Best<br>Alternative)              | Christchurch | 8829                             | 9127                             | 3%       |
| Burnside (SH1)                                  | Dunedin      | 24779                            | 25573                            | 3%       |

Overall the MADT values at all 5 key sites have increased in August when compared to the same period in the previous year with Auckland showing the largest rise of 5%.

It is noted that the site in Karapiro is not the best representation of traffic in Hamilton. A more suitable site has now been installed and once 13 months of data is available we will provide data for use within this report.

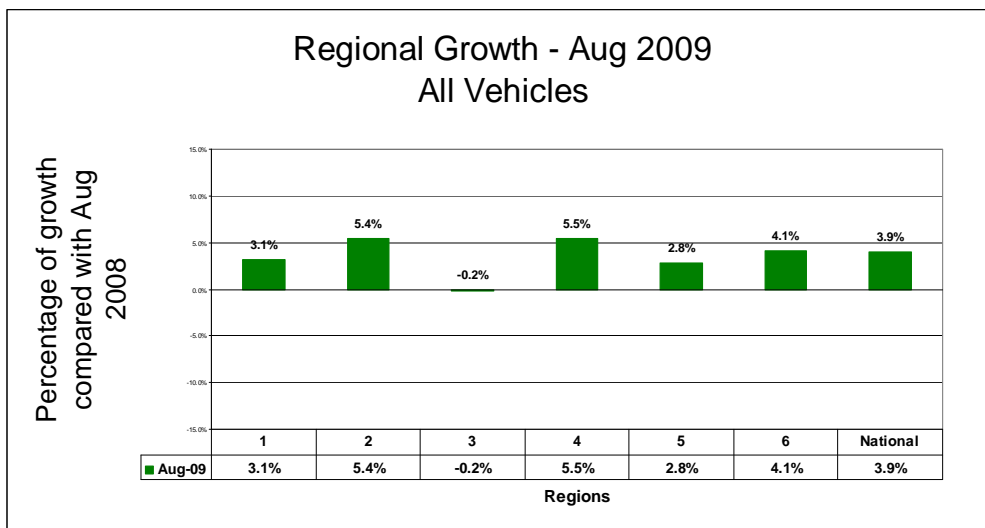
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# Results: All Vehicles

## Regions

Comparisons across the NZ Transport Agency regions have also been carried out.

The graph below shows the percentage of difference compared with the same period in 2008. The MADT values here represent all vehicle types. It can be observed that most regions have had an increase<sup>1</sup> in MADT, except region 3 remained at the same level as last year. Nationally, the MADT in August 2009 for all vehicles has increased by 3.9% compared with August 2008<sup>2</sup>.



| NZTA Region Number | NZTA Region  |
|--------------------|--|
| 1                  | Northland and Auckland                               |
| 2                  | Waikato and Bay of Plenty                            |
| 3                  | Taranaki, Manawatu-Wanganui, Hawkes Bay and Gisborne |
| 4                  | Wellington, Nelson, Marlborough and Tasman           |
| 5                  | Canterbury and West Coast                            |
| 6                  | Otago and Southland                                  |

## More graphs

The graphs (same as above) dated back to January 2007 are attached to this report.

## All sites

A table of MADT (all vehicles) values for all national telemetry sites is attached to this report.

<sup>1</sup> Regional MADT Growth - Weighted average of all the National telemetry sites in the specific region.

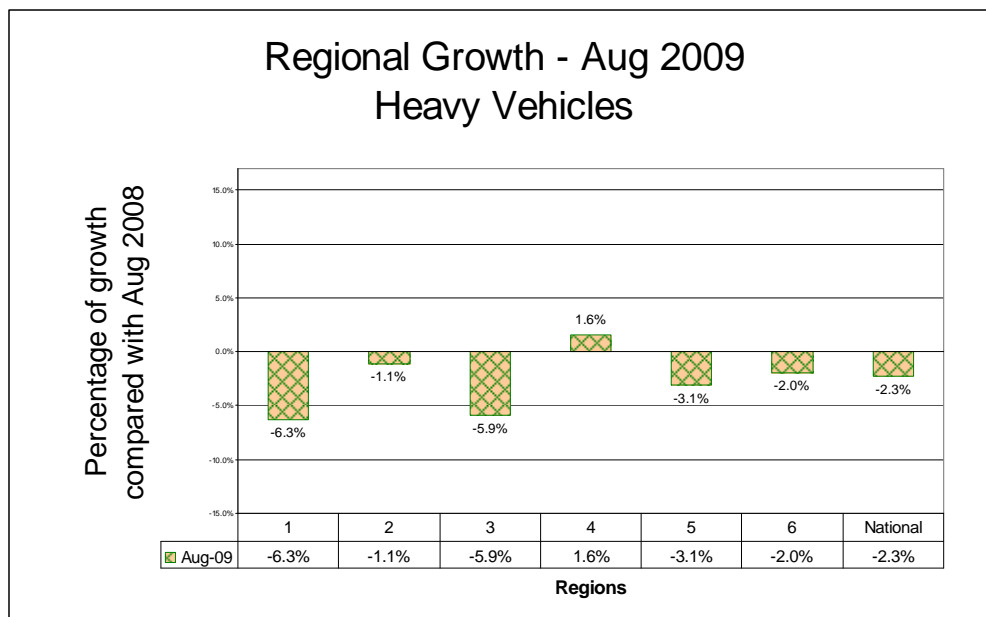
<sup>2</sup> National MADT Growth - Average of all the National telemetry sites.

# Results: Heavy Vehicles

## Regions

Comparisons across the NZ Transport Agency regions have also been carried out, focusing on heavy vehicles<sup>1</sup>.

The graph below shows the percentage of difference compared with the same period in 2008. The MADT values here represent heavy vehicles only. It can be observed that MADT for heavy vehicles has decreased in most regions, except region 4 which has had an increase of 1.6%<sup>2</sup>. Nationally, the MADT in August 2009 for heavy vehicles dropped 2.3% compared with August 2008<sup>3</sup>.



| NZTA Region Number | NZTA Region  |
|--------------------|--|
| 1                  | Northland and Auckland                               |
| 2                  | Waikato and Bay of Plenty                            |
| 3                  | Taranaki, Manawatu-Wanganui, Hawkes Bay and Gisborne |
| 4                  | Wellington, Nelson, Marlborough and Tasman           |
| 5                  | Canterbury and West Coast                            |
| 6                  | Otago and Southland                                  |

## More graphs

The graphs (same as above) dated back to January 2007 are attached to this report.

## All sites

A table of MADT (heavy vehicles) values for all national telemetry sites for 2009 is attached to this report.

<sup>1</sup> Heavy vehicles are those with a gross vehicle mass exceeding 3.5 tonnes.

<sup>2</sup> Regional MADT Growth - Weighted average of all the National telemetry sites in the specific region.

<sup>3</sup> National MADT Growth - Average of all the National telemetry sites.



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## Appendices

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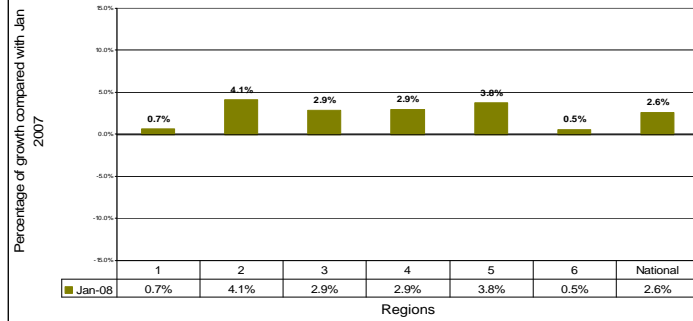
### Current and Previous Years Growth Graphs

- All Vehicles
- Heavy Vehicles

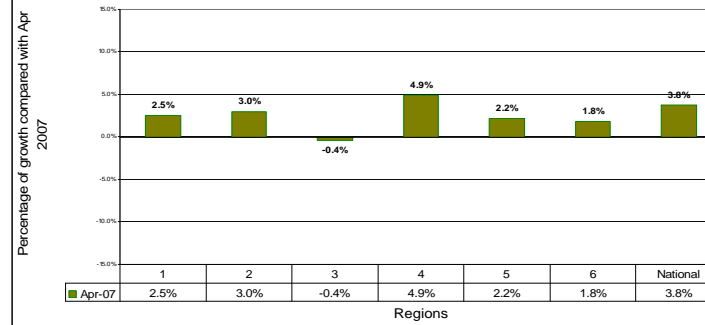
### Telemetry Site MADT's for 2009

- All Vehicles
- Heavy Vehicles

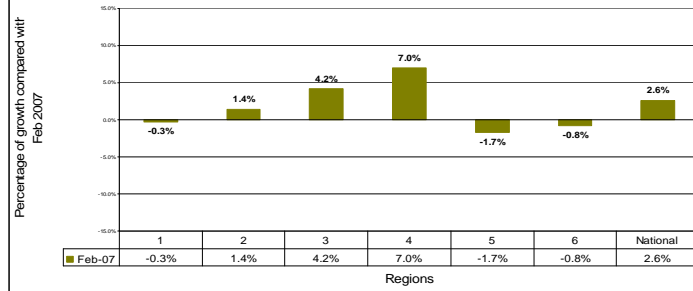
### Regional Growth - Jan 2007 All Vehicles



### Regional Growth - Apr 2007 All Vehicles



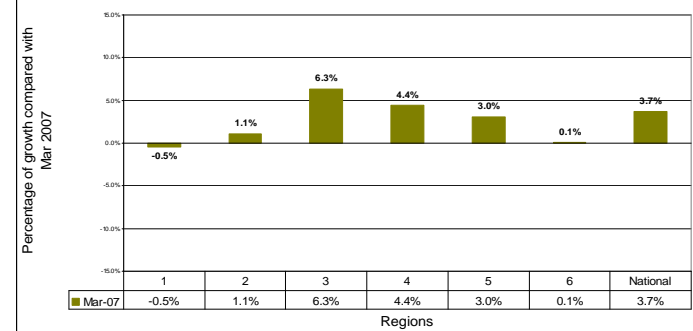
### Regional Growth - Feb 2007 All Vehicles



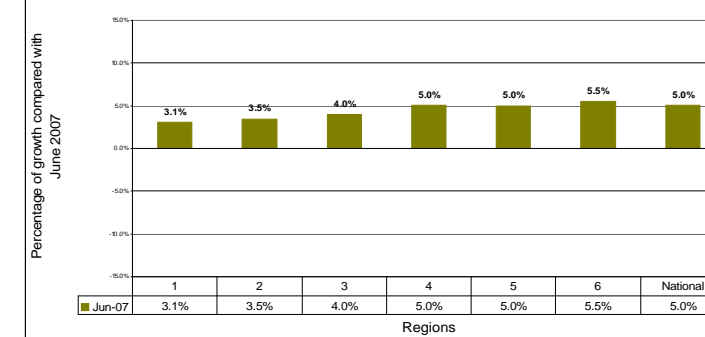
### Regional Growth - May 2007 All Vehicles



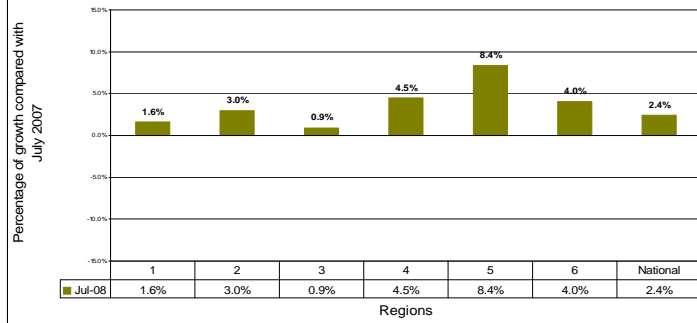
### Regional Growth - Mar 2007 All Vehicles



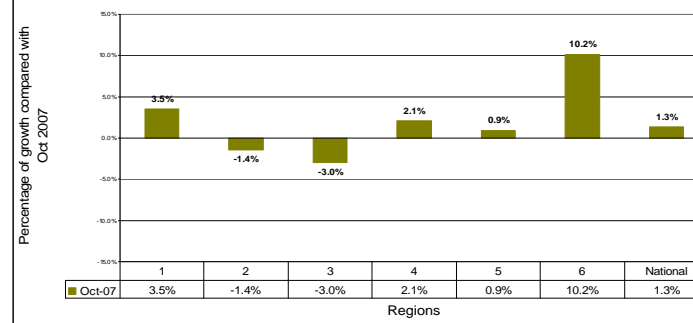
### Regional Growth - June 2007 All Vehicles



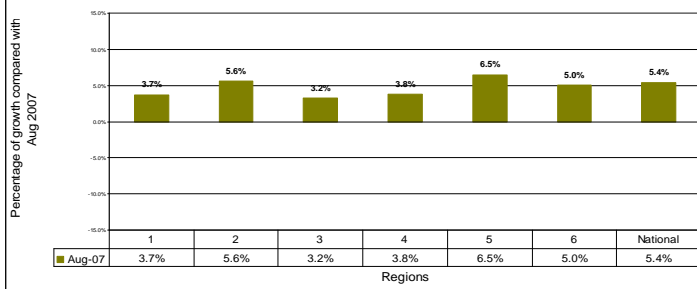
### Regional Growth - July 2007 All Vehicles



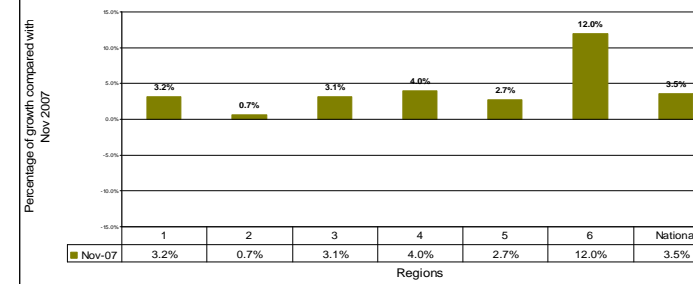
### Regional Growth - Oct 2007 All Vehicles



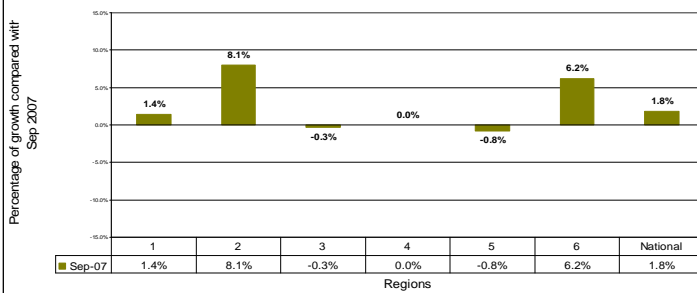
### Regional Growth - Aug 2007 All Vehicles



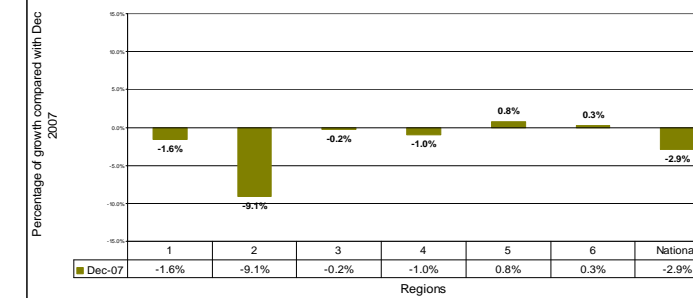
### Regional Growth - Nov 2007 All Vehicles



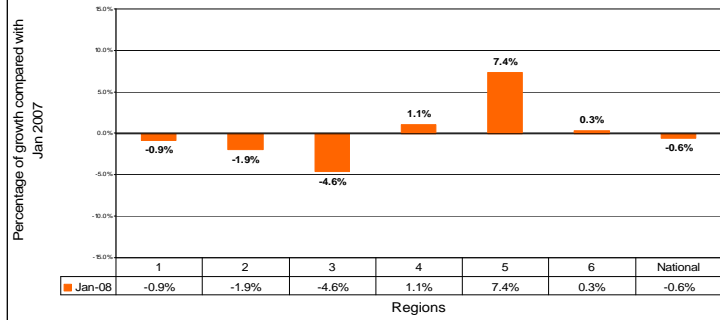
### Regional Growth - Sep 2007 All Vehicles



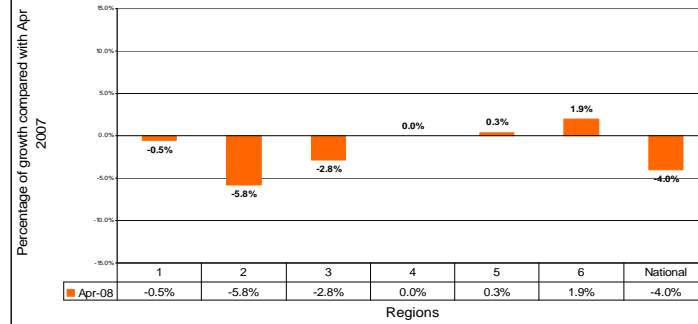
### Regional Growth - Dec 2007 All Vehicles



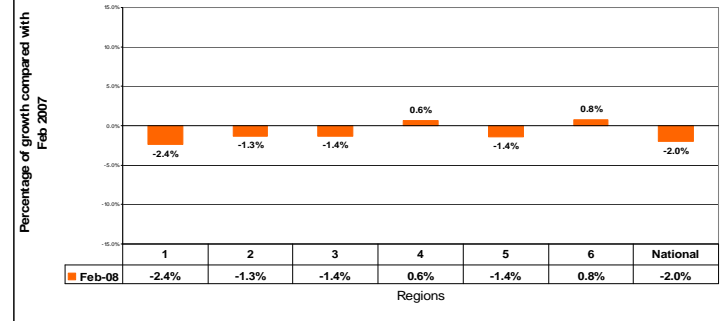
Regional Growth - Jan 2008  
All Vehicles



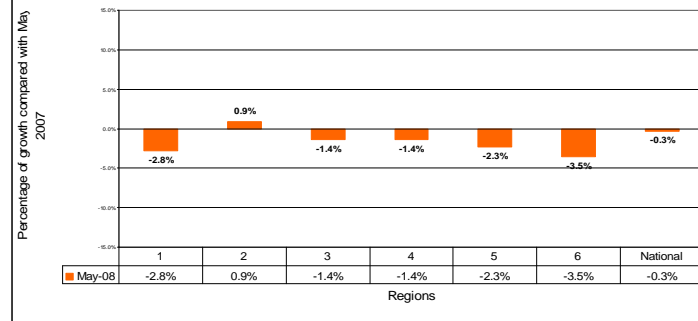
Regional Growth - Apr 2008  
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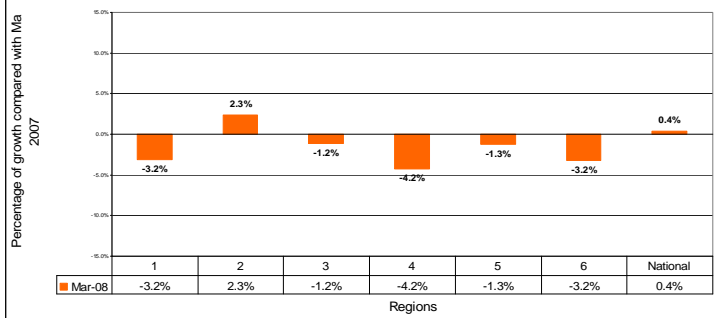
Regional Growth - Feb 2008  
All Vehicles



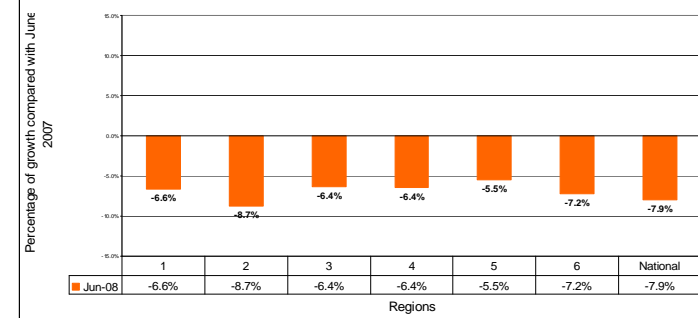
Regional Growth - May 2008  
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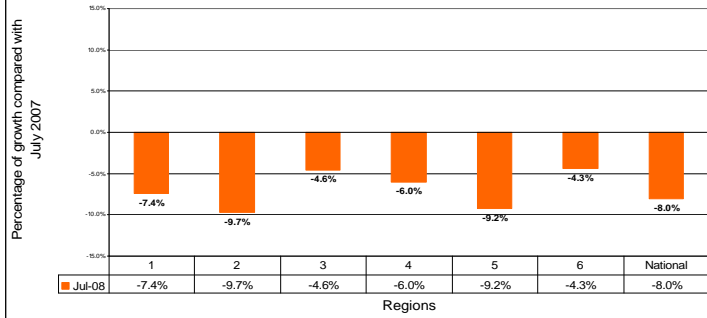
Regional Growth - Mar 2008  
All Vehicles



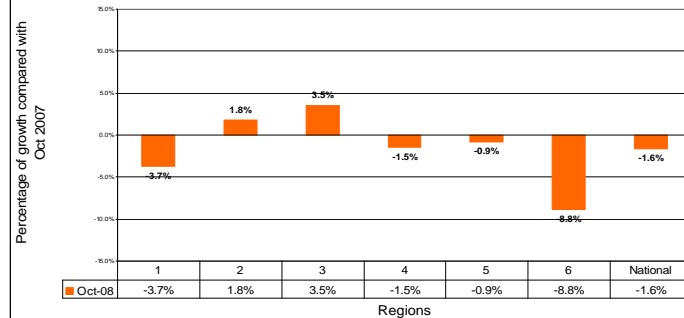
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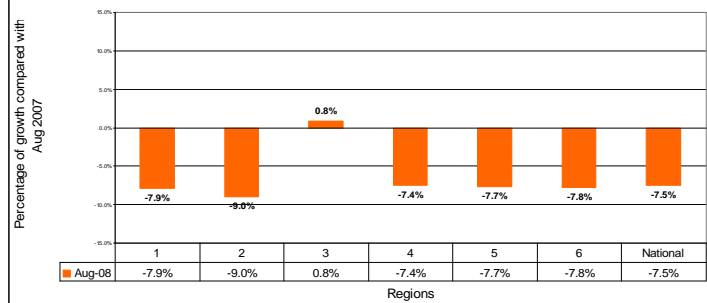
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All Vehicles



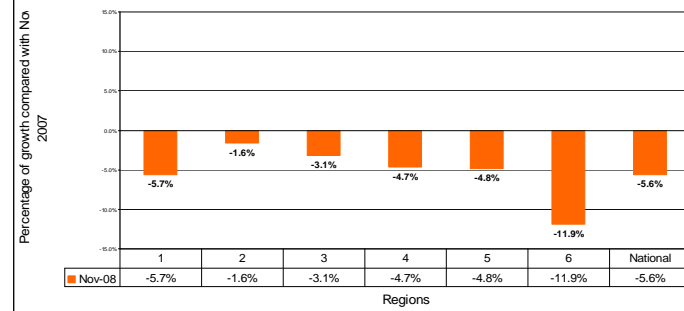
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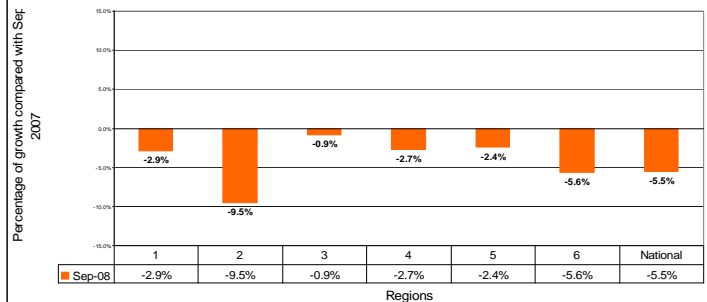
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All Vehicles



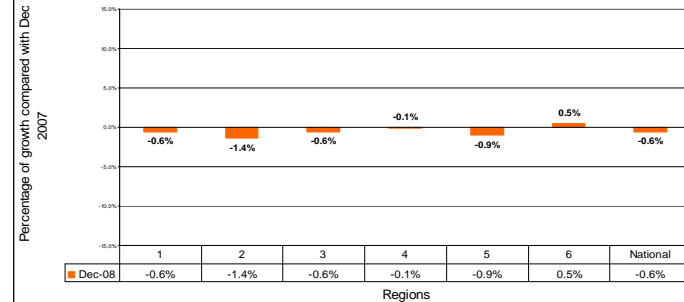
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All Vehicles



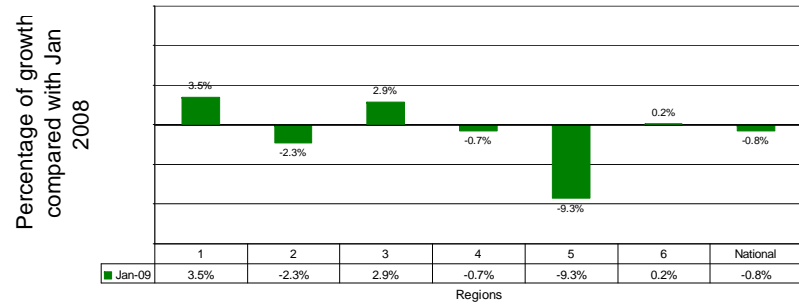
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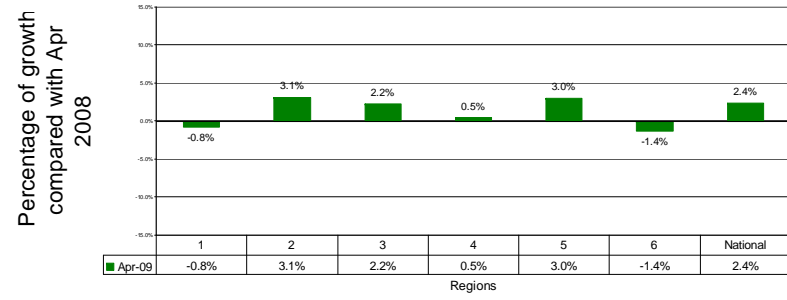
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All Vehicles



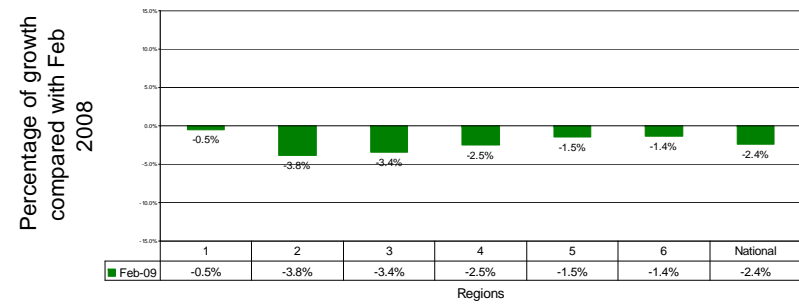
Regional Growth - Jan 2009  
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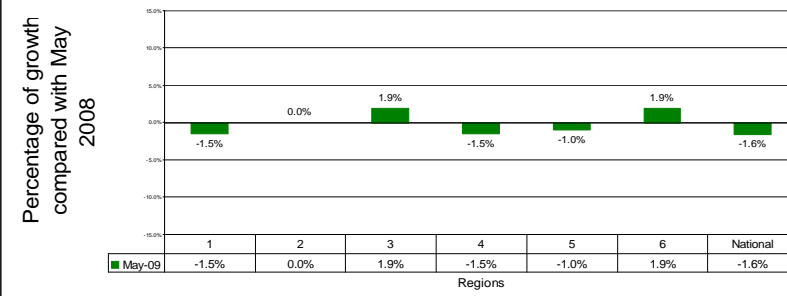
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All Vehicles



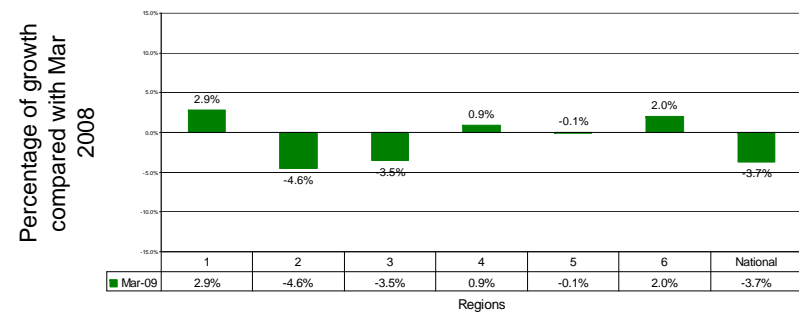
Regional Growth - Feb 2009  
All Vehicles



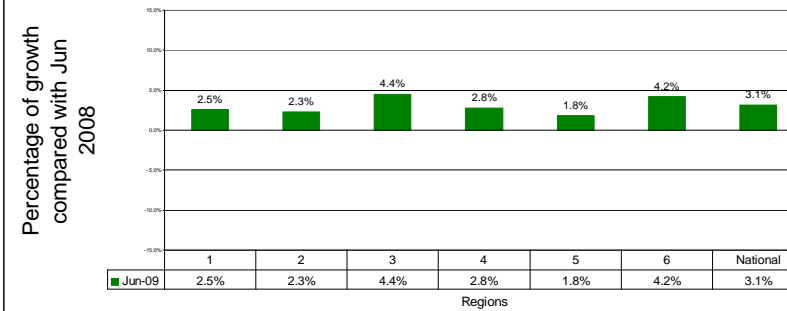
Regional Growth - May 2009  
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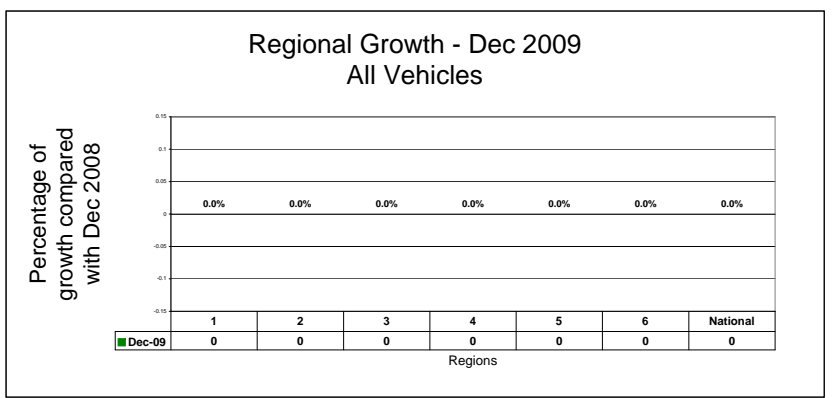
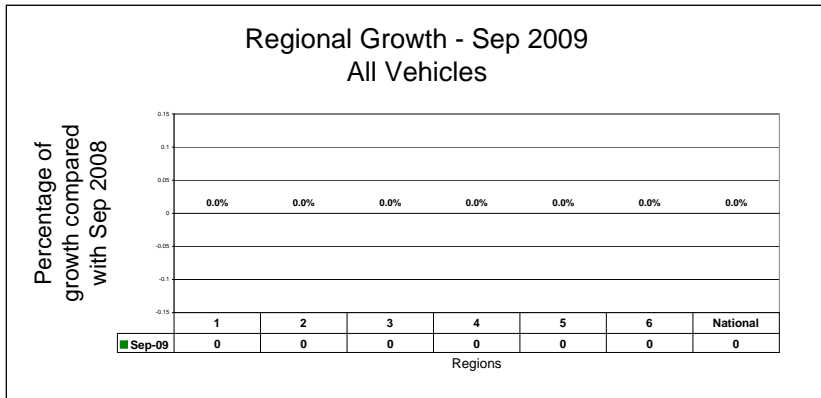
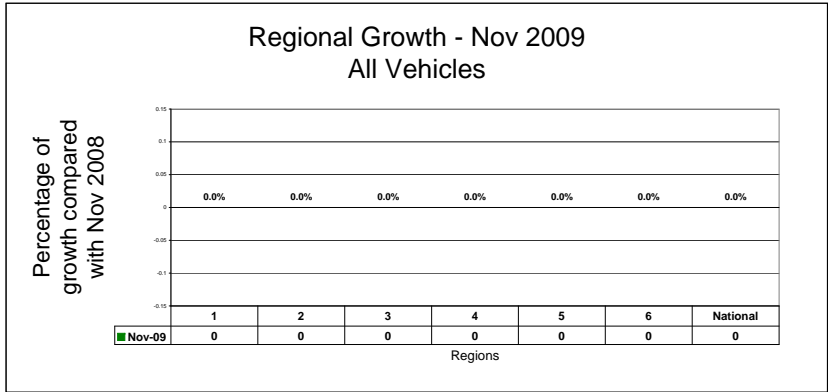
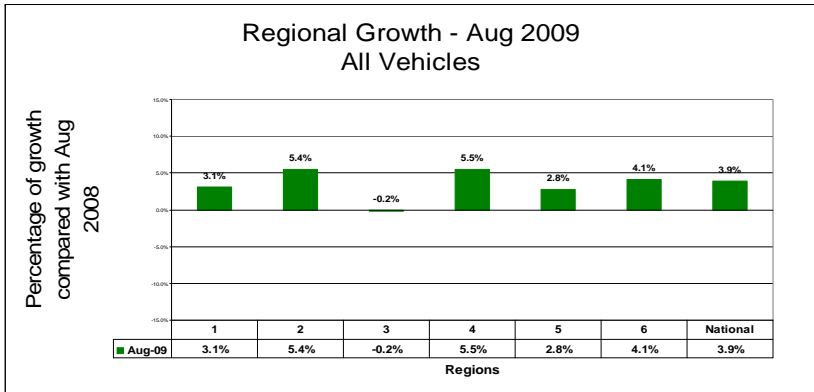
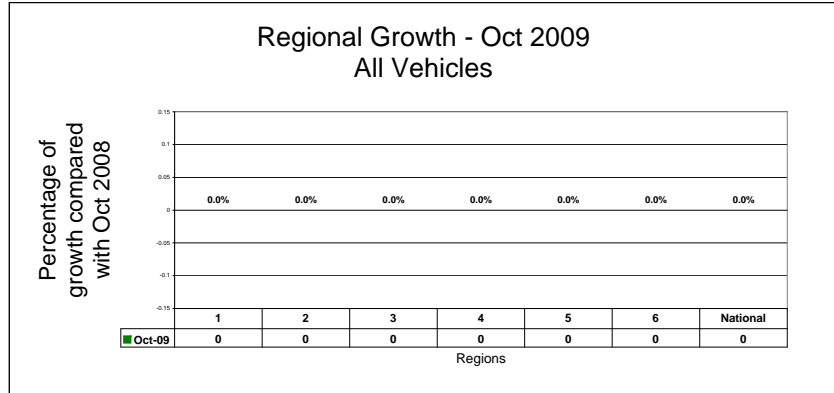
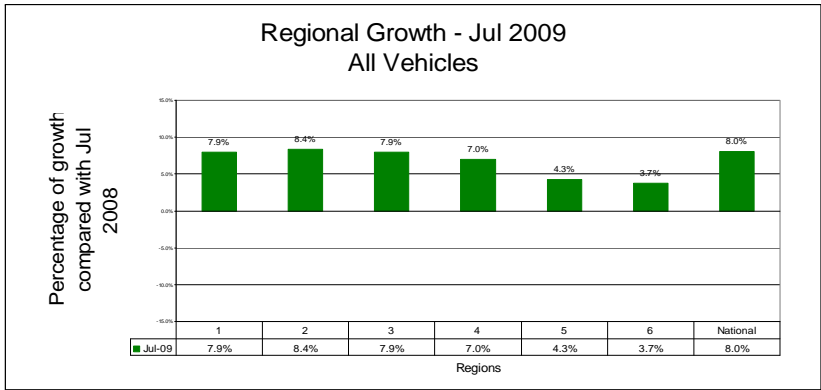


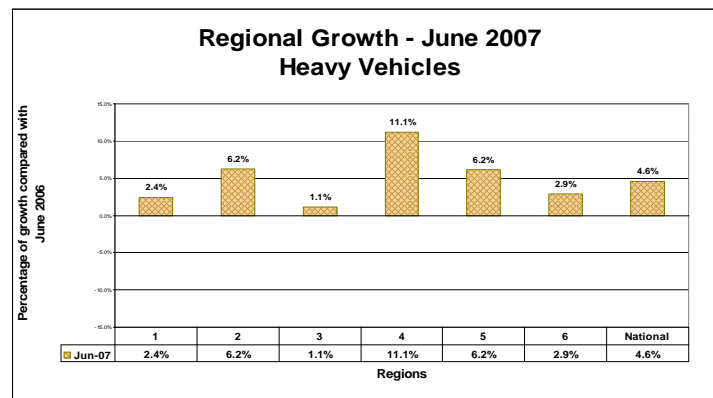
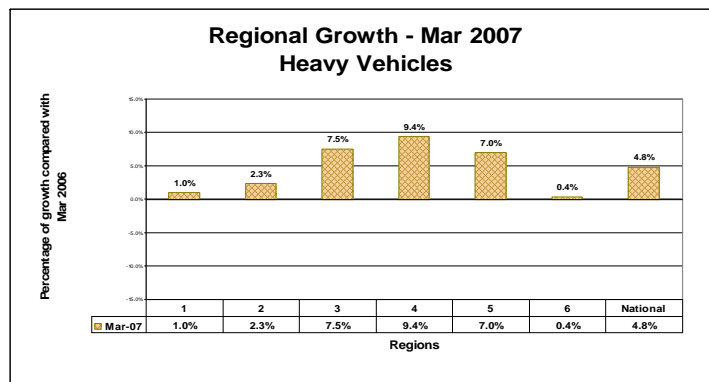
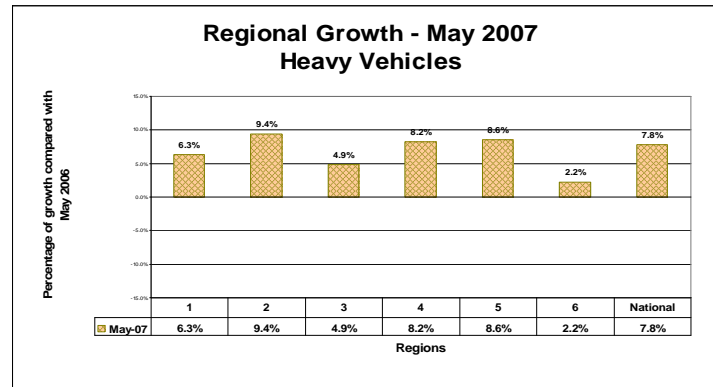
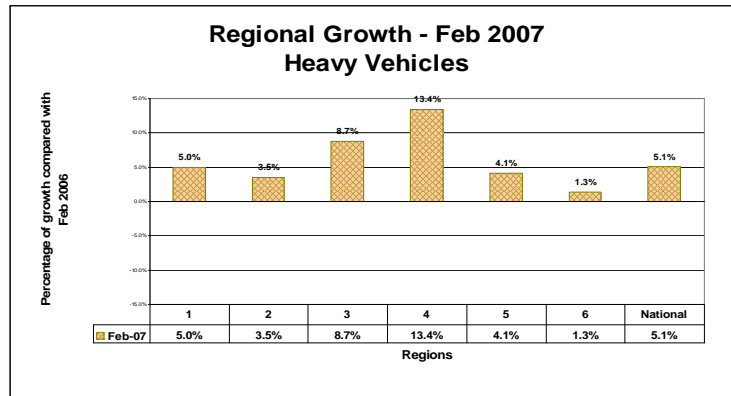
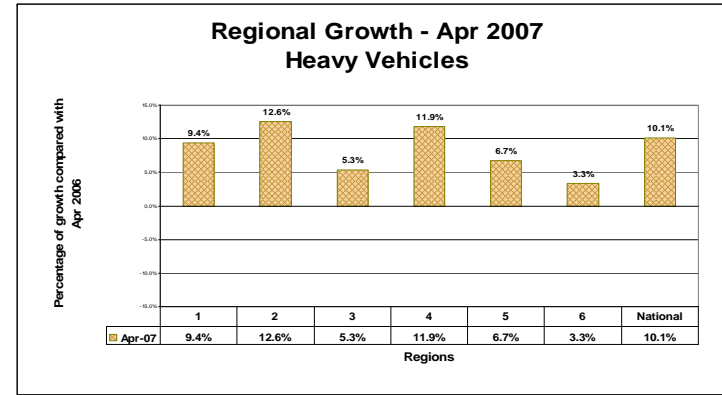
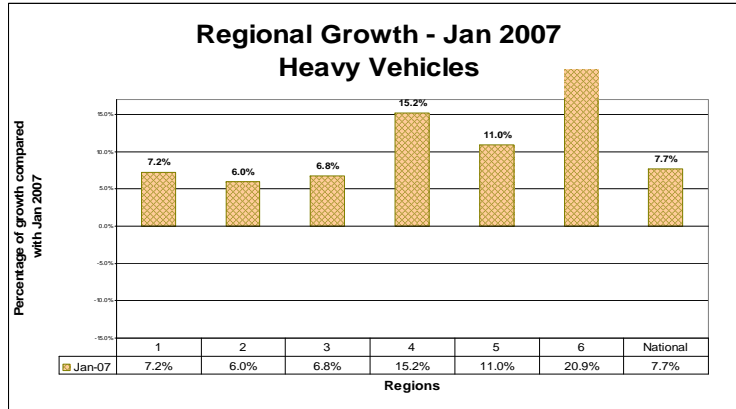
Regional Growth - Mar 2009  
All Vehicles



Regional Growth - Jun 2009  
All Vehicles

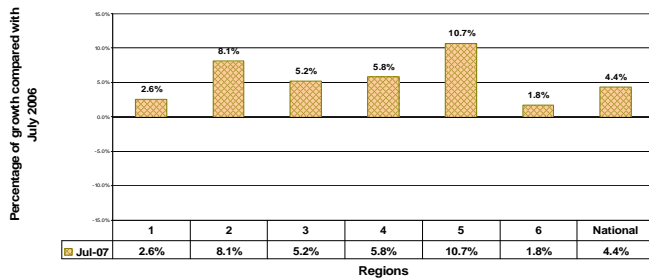




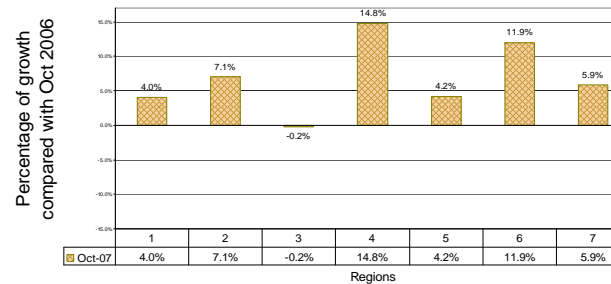




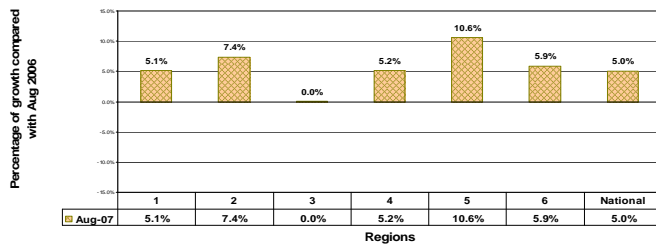
### Regional Growth - July 2007 Heavy Vehicles



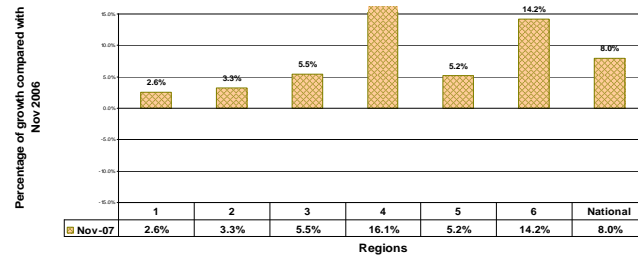
### Regional Growth - Oct 2007 Heavy Vehicles



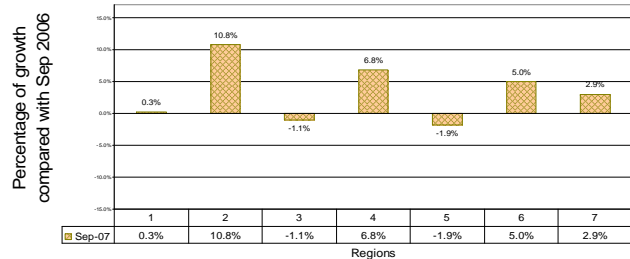
### Regional Growth - Aug 2007 Heavy Vehicles



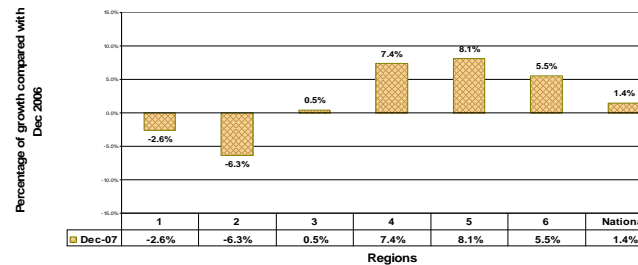
### Regional Growth - Nov 2007 Heavy Vehicles

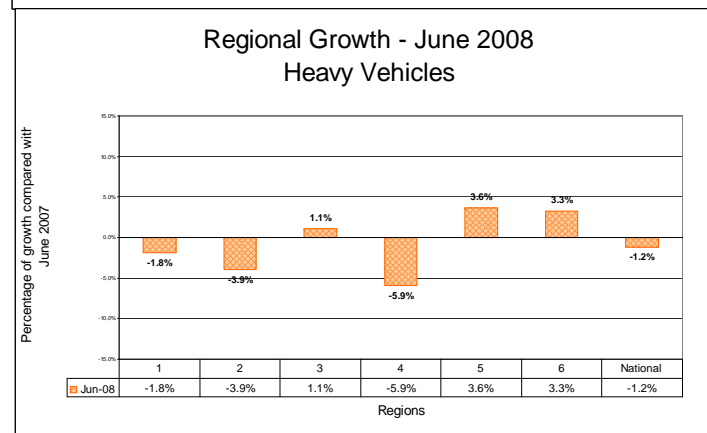
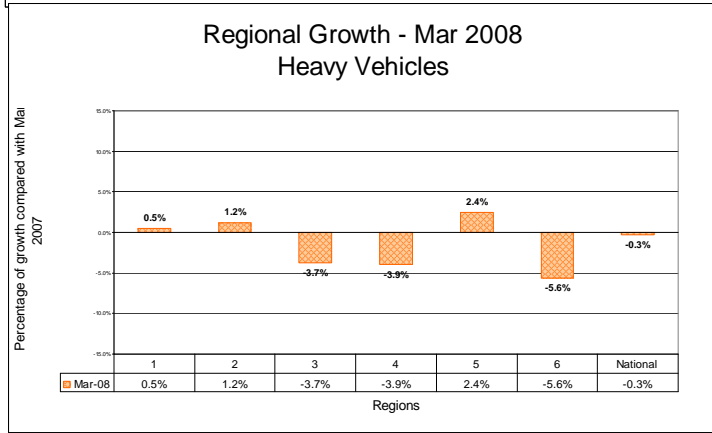
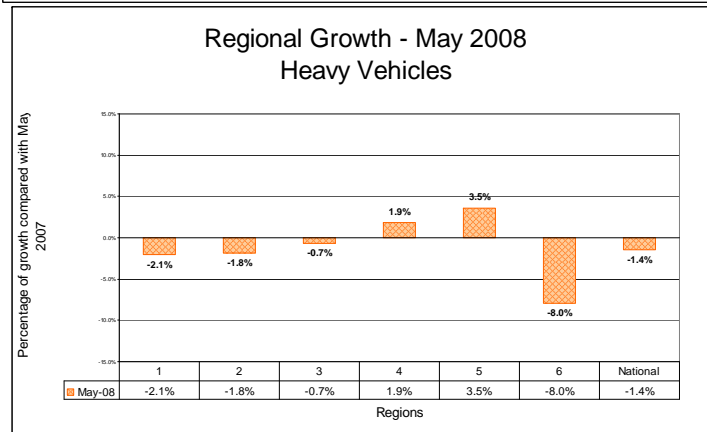
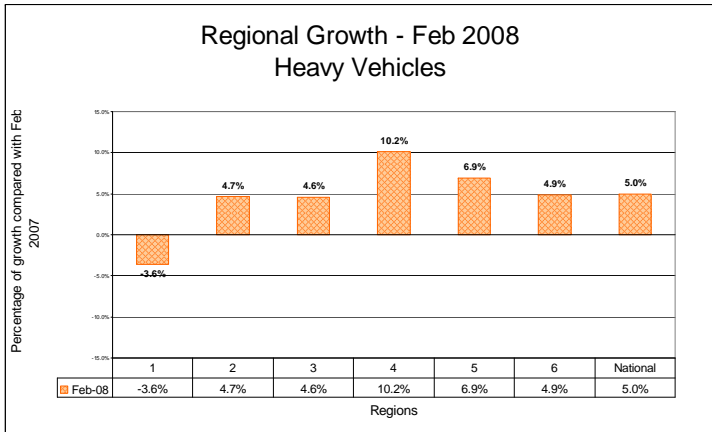
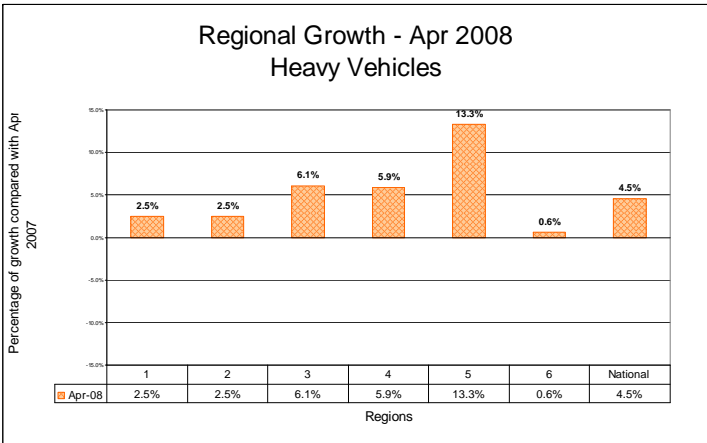
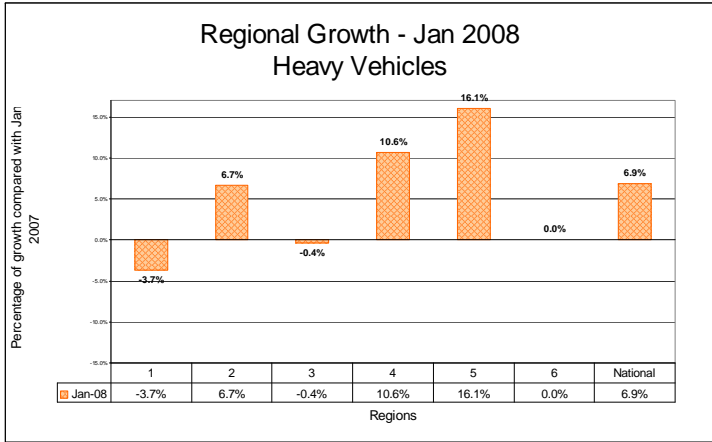


### Regional Growth - Sep 2007 Heavy Vehicles

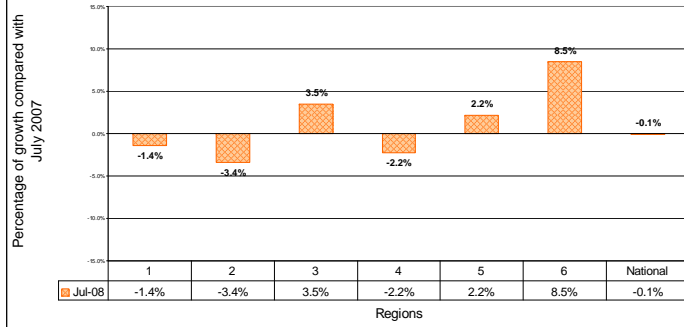


### Regional Growth - Dec 2007 Heavy Vehicles

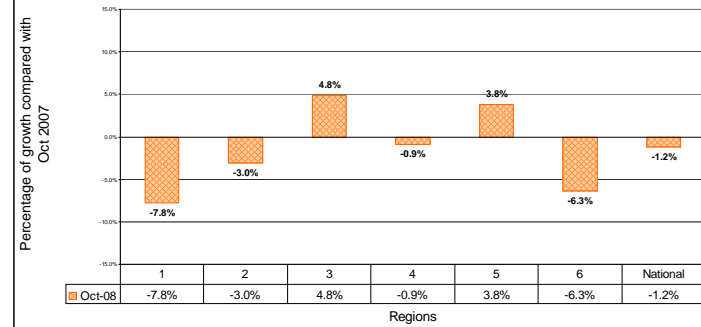




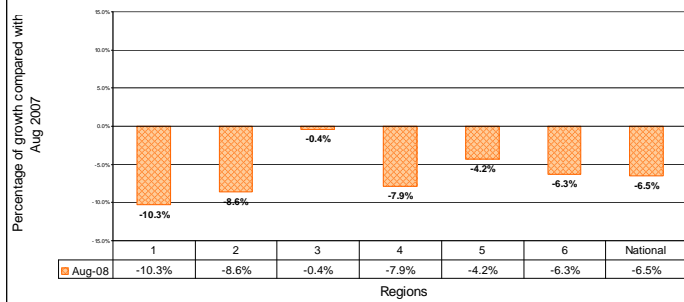
Regional Growth - July 2008  
Heavy Vehicles



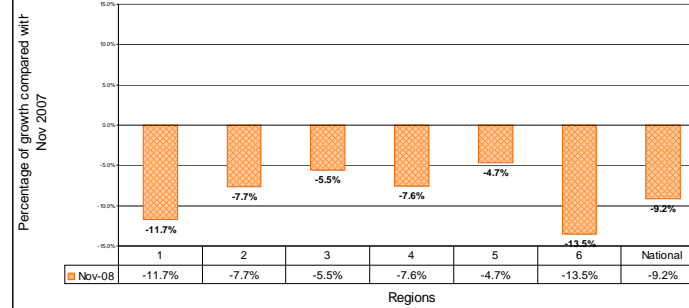
Regional Growth - Oct 2008  
Heavy Vehicles



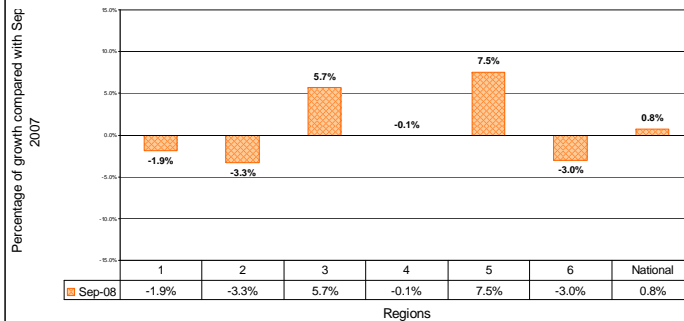
Regional Growth - Aug 2008  
Heavy Vehicles



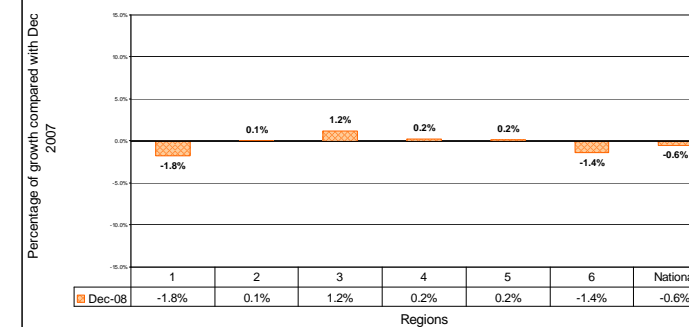
Regional Growth - Nov 2008  
Heavy Vehicles



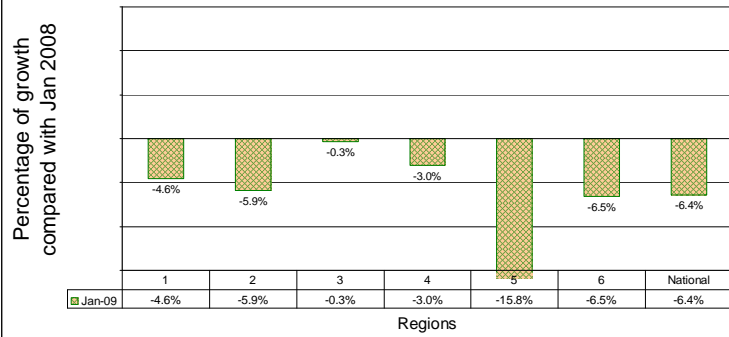
Regional Growth - Sep 2008  
Heavy Vehicles



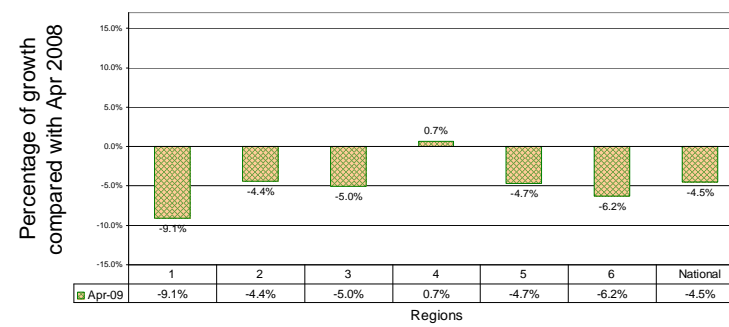
Regional Growth - Dec 2008  
Heavy Vehicles



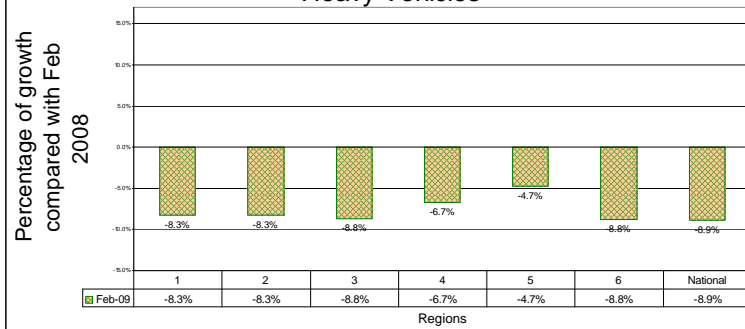
Regional Growth - Jan 2009  
Heavy Vehicles



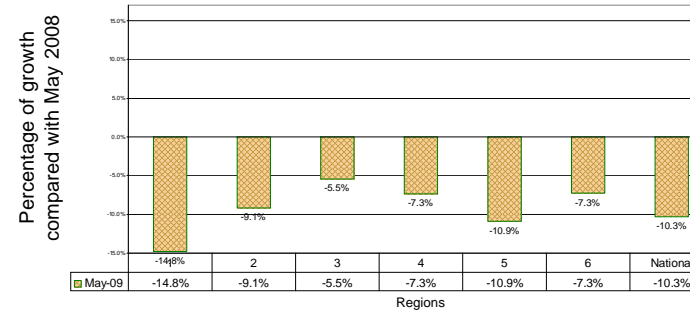
Regional Growth - Apr 2009  
Heavy Vehicles



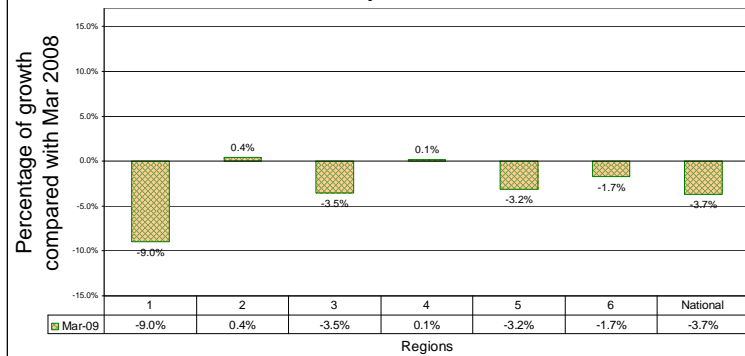
Regional Growth - Feb 2009  
Heavy Vehicles



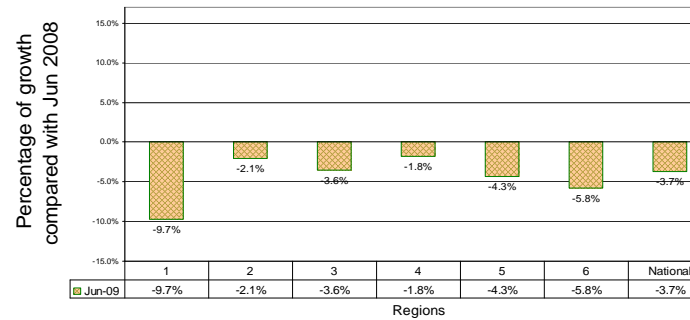
Regional Growth - May 2009  
Heavy Vehicles

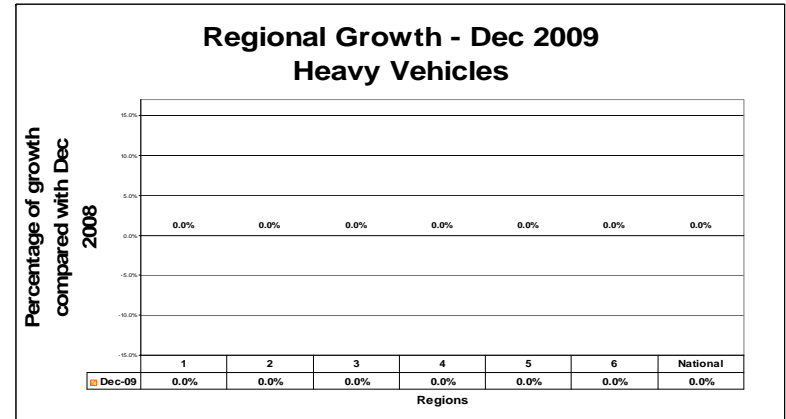
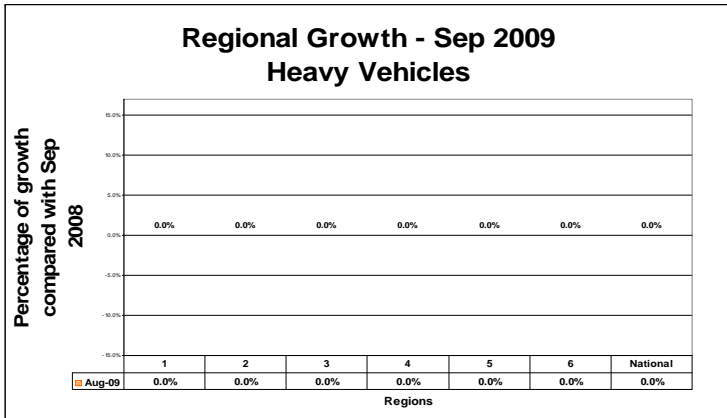
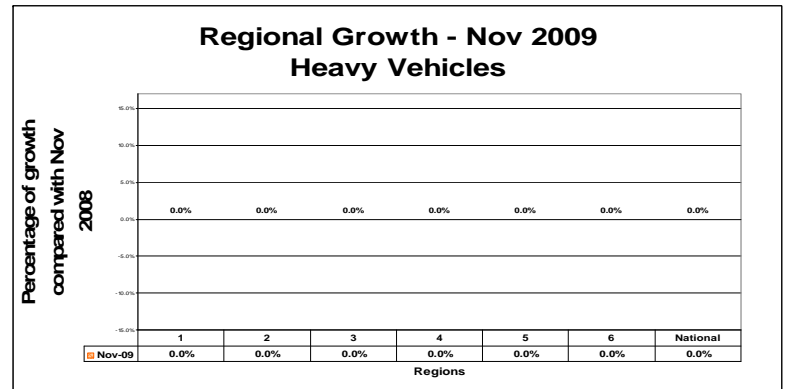
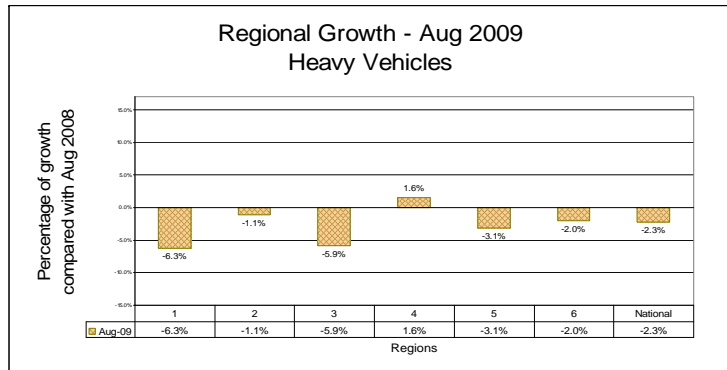
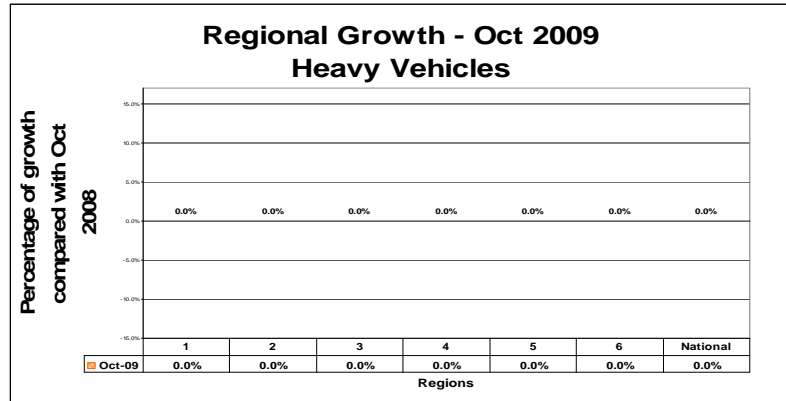
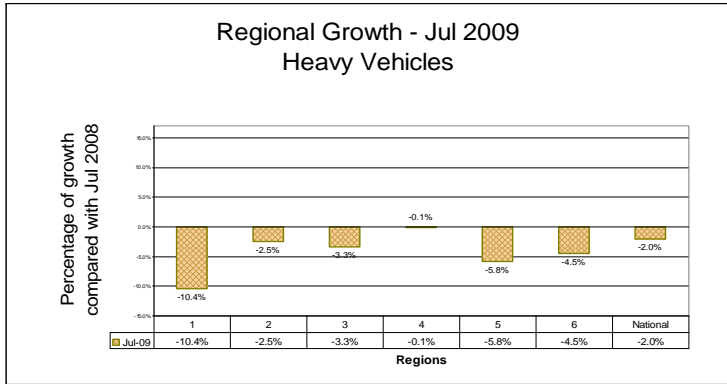


Regional Growth - Mar 2009  
Heavy Vehicles



Regional Growth - Jun 2009  
Heavy Vehicles





## Telemetry Site MADT All Vehicles

| NZTA Region | Site Ref    | Description                          | Aug-08 | Sep-08 | Oct-08 | Nov-08 | Dec-08 | Jan-09 | Feb-09 | Mar-09 | Apr-09 | May-09 | Jun-09 | Jul-09 | Aug-09 |
|-------------|-------------|--------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1           | ID:01N00212 | KAWAKAWA                             | 5072   | 5422   | 6039   | 5912   | 6891   | 7464   | 6603   | 6302   | 6472   | 5480   | 5205   | 5419   | 5241   |
| 1           | ID:01000029 | Sth of Takou Bay Rd                  | 2960   |        | 3431   | 3416   | 3744   | 5381   | 4080   | 3729   | 4037   |        |        | 3027   | 3045   |
| 1           | ID:01N00274 | Nth of Maungakaramea Rd              |        |        | 13620  | 13535  |        |        |        | 14461  | 14893  |        |        | 13055  | 12650  |
| 1           | ID:01200220 | East of Brynderwyn Brq 161           |        |        | 2651   | 2727   | 2830   |        | 3062   |        | 2962   |        |        |        |        |
| 1           | ID:01N00130 | Nth of Ramseys Brq                   |        |        |        | 1044   |        |        |        |        | 1232   |        |        |        | 916    |
| 1           | ID:01N00265 | Sth of Selwyn Avenue                 | 21054  | 21357  |        |        |        |        | 22219  | 22761  |        |        |        | 20620  |        |
| 1           | ID:01N00388 | HATFIELDS BEACH                      | 14826  | 16051  | 17552  | 17767  | 20581  | 19605  | 6876   | 6279   | 6076   | 5504   | 5058   | 5296   | 5227   |
| 1           | ID:01N10459 | DRURY - SB                           | 25866  | 27270  | 27904  | 28199  | 30297  | 28681  | 29162  | 29117  | 28896  | 27503  | 26292  | 27896  | 27036  |
| 1           | ID:01N20459 | DRURY - NB                           | 26052  | 27278  | 28175  | 28249  | 29186  | 30036  | 29336  | 29520  | 29247  | 27508  | 27008  | 28085  | 27273  |
| 1           | ID:01N00339 | WELLSFORD                            | 7358   |        | 8917   | 8660   | 10436  | 11660  |        |        |        |        |        |        | 7663   |
| 1           | ID:01N10440 | PANAMA Rd - SB                       | 58572  | 61851  | 61182  | 62566  | 61517  | 57398  | 61880  | 63111  | 60607  | 60129  | 58263  | 60209  | 59576  |
| 1           | ID:01N20440 | PANAMA RD - NB                       | 55876  | 59171  | 58470  | 59782  | 57983  | 56151  | 58456  | 59312  | 57379  | 56825  | 55650  | 57546  | 57434  |
| 1           | ID:01N10474 | BOMBAY - SB                          | 15249  | 16233  | 17377  | 17068  | 19788  | 19226  | 18252  | 17926  | 18572  | 16532  | 15594  | 16786  | 16016  |
| 1           | ID:01N20474 | BOMBAY - NB                          | 15169  | 15969  | 17283  | 16986  | 18224  | 20285  | 18148  | 18245  | 18615  | 16171  | 16022  | 16705  | 16067  |
| 1           | ID:01N00424 | Auckland Harbour Brq - Centre Span   | 76880  | 80840  | 79165  | 82306  | 80475  | 73761  | 77309  | 78775  | 81280  | 84221  | 76340  | 83792  | 82350  |
| 1           | ID:01N10424 | Auckland Harbour Brq - Left Clip-on  | 38804  | 40551  | 41386  | 42359  | 41939  | 38414  | 42550  | 43523  | 41312  | 38693  | 38479  | 39197  | 36782  |
| 1           | ID:01N20424 | Auckland Harbour Brq - Right Clip-on | 34592  | 35216  | 34269  | 35631  | 29794  | 30641  | 38432  | 38935  | 36379  | 35896  | 38224  | 36471  | 38506  |
| 2           | ID:00200002 | MAUNGATAWHIRI                        | 10538  | 11282  | 12703  | 11926  | 14799  | 16390  | 13621  | 13118  | 13693  | 11943  | 10976  | 11883  | 11138  |
| 2           | ID:25A00011 | NEEVESVILLE                          | 2451   | 2590   | 3317   | 3060   | 4462   | 5925   | 3748   | 3346   | 3584   | 2598   | 2275   | 2503   | 2484   |
| 2           | ID:02700011 | KAIHERE                              | 3474   | 3614   | 4052   | 3734   | 4307   | 4349   | 4219   | 4216   | 4640   | 3838   | 3645   | 3991   | 3760   |
| 2           | ID:01N00526 | TAUPIRI                              | 18988  | 19725  | 20592  | 20730  | 21629  | 20987  | 20924  | 21447  | 21618  | 19794  | 19493  | 20987  |        |
| 2           | ID:01N00620 | LICHFIELD                            | 8025   | 8578   |        |        | 9490   | 9475   | 9209   | 9202   | 9421   | 8384   | 8185   | 8663   | 8271   |
| 2           | ID:00300085 | TE KUITI                             | 3929   | 4162   | 5128   | 3808   | 4342   | 4324   | 3941   | 4061   | 4342   | 3691   | 3796   | 4372   | 4063   |
| 2           | ID:03200074 | West of Taupo                        | 595    | 699    | 750    | 769    | 856    | 956    | 875    | 779    | 879    | 646    | 628    | 752    | 711    |
| 2           | ID:01N00580 | KARAPIRO                             | 13065  | 13713  | 14731  | 14832  | 15751  | 15971  | 15333  | 15230  | 15465  | 13839  | 12699  | 13687  | 13234  |
| 2           | ID:00200091 | WAIHI                                | 6099   | 6528   | 7361   | 7201   | 9252   | 9800   | 8025   | 7734   | 7876   | 6833   | 6507   | 6788   | 6509   |
| 2           | ID:01N00729 | HALLETTS BAY                         | 4686   | 4986   | 5485   | 5127   | 6265   | 7050   | 5966   | 5363   | 5954   | 6096   | 4389   | 5530   | 4969   |
| 2           | ID:00200141 | TE PUNA                              | 14140  | 14977  | 15434  | 15978  | 17171  | 16941  | 16374  | 16278  | 16239  | 15699  | 14666  | 15025  | 14810  |
| 2           | ID:03010149 | TE NGA                               | 16231  | 17051  | 17259  |        | 17823  | 17317  | 17704  | 17655  | 17209  | 16801  | 16464  | 16332  | 16606  |
| 2           | ID:03020149 | East end of Puarenga Brq (Dec)       | 16200  | 16970  | 17222  |        | 17064  | 17418  | 17693  | 17539  | 17027  | 16693  | 16516  | 16369  | 16566  |
| 2           | ID:00200204 | OHINEPANEA                           | 4082   | 4376   | 4787   | 4577   | 5297   | 5562   | 4899   | 4708   | 5035   | 4548   | 4260   | 4368   | 4302   |
| 2           | ID:03000188 | LAKE ROTOMA                          | 2472   | 2659   | 2861   | 2729   | 3257   | 3615   | 3075   | 2887   | 3023   | 2702   | 2579   | 2670   | 2569   |
| 2           | ID:03300030 | Sth of Maungaranqi Rd Paengaroa      | 3429   | 3570   | 3909   | 3960   | 4407   | 4976   | 4392   | 4137   | 4332   | 4488   | 4204   | 4342   | 5096   |
| 2           | ID:00500034 | TARUKENGA                            | 4421   | 4693   | 5196   | 5003   | 5554   | 5837   | 5460   | 5133   | 5677   | 4834   | 4686   | 4964   | 4710   |
| 2           | ID:02900034 | KAIMAI                               | 8361   | 8431   | 9089   | 9049   | 10186  | 10167  | 9402   | 9361   | 9469   | 8611   | 8352   | 8501   | 8421   |
| 2           | ID:00500057 | WAIPA                                | 6296   | 6646   | 7176   | 7110   | 7673   | 8134   | 7851   | 7464   | 7794   | 8429   | 6414   | 6970   | 6575   |
| 3           | ID:00200428 | ORMOND                               | 2106   | 2178   | 2431   | 2326   | 2780   | 3278   | 2569   | 2509   | 2467   | 2220   | 2171   | 2151   | 2134   |
| 3           | ID:00200627 | TANGOIO                              | 1687   | 1843   | 2087   | 2029   | 2348   | 2539   | 2234   | 2162   | 2309   | 1914   | 1818   | 1825   | 1784   |
| 3           | ID:00500230 | TE POHUE                             | 2155   | 2344   | 2862   | 2684   | 3167   | 3506   | 3261   | 3136   | 3214   | 2457   | 2169   | 2558   | 2368   |
| 3           | ID:05000010 | Nth of Tutaekuri River               | 23484  | 20339  | 20518  | 20847  | 21094  | 19958  | 21252  | 22081  | 21536  | 20837  | 20017  | 20367  | 19941  |
| 3           | ID:00300171 | TONGAPORUTU Brq                      | 1730   | 1870   | 2157   | 1999   | 2406   | 2606   | 2240   | 2312   | 2514   | 1807   | 1817   | 1912   | 1739   |
| 3           | ID:00300267 | TARIKI                               | 7964   | 8270   | 8402   | 9013   | 8947   | 8121   | 6690   | 6976   | 8914   |        |        |        | 8187   |
| 3           | ID:00300370 | WAITOTARA                            | 2986   | 3205   | 3421   | 3457   | 3666   | 3581   | 3552   | 3566   | 3594   | 3138   | 3076   | 3267   | 3097   |
| 3           | ID:04500101 | OHAWE BEACH Rd                       | 3983   | 4475   | 4600   | 4879   | 4813   | 4612   | 4606   | 4485   | 4432   |        | 4003   | 4032   | 4055   |
| 3           | ID:01N00930 | SANSON                               | 10680  | 11135  | 11946  | 11759  | 12760  | 12776  | 12666  | 12324  | 12789  | 11313  | 11005  |        | 11393  |

## Telemetry Site MADT All Vehicles

| NZTA Region | Site Ref    | Description                     | Aug-08 | Sep-08 | Oct-08 | Nov-08 | Dec-08 | Jan-09 | Feb-09 | Mar-09 | Apr-09 | May-09 | Jun-09 | Jul-09 | Aug-09 |
|-------------|-------------|---------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 3           | ID:01N00988 | OHAU                            | 13395  | 13983  | 15057  | 14789  | 16202  | 16317  | 15761  | 15318  | 13220  | 14122  | 13477  | 14381  | 14025  |
| 3           | ID:00200755 | NORSEWOOD                       | 3213   | 3438   | 3984   | 3959   | 4515   | 4803   | 4492   | 4341   | 4370   | 3644   | 3316   | 3520   | 3376   |
| 3           | ID:00300489 | MANAWATU GORGE                  | 5891   | 6205   | 6650   | 5999   | 7363   | 7468   | 7164   | 7153   | 7184   | 6465   | 6088   | 6336   | 6155   |
| 3           | ID:00400133 | HOROPITO                        | 2241   | 2254   | 2092   | 1745   | 1945   | 2112   | 1916   | 1776   | 1927   | 1505   | 1857   | 2403   | 2336   |
| 3           | ID:00400226 | UPOKONGARO                      | 1752   | 2126   | 1881   | 1968   | 2125   | 2060   |        | 1962   | 2085   |        | 1753   | 1902   | 1820   |
| 3           | ID:01N00827 | HIHITAHU                        |        |        | 4641   | 4843   | 5211   | 5945   | 5172   | 4582   | 5226   | 3891   | 3791   | 4505   | 4125   |
| 4           | ID:01N11068 | NGAURANGA - SB                  | 21576  | 22218  | 22170  | 22502  | 21638  | 20438  | 22933  | 22863  | 22103  | 22141  | 21890  | 22444  | 22582  |
| 4           | ID:00200895 | CLAREVILLE                      | 9341   | 9967   | 10236  | 10680  | 11010  | 10514  | 10787  | 10798  | 10633  | 9983   | 9841   | 9931   | 10175  |
| 4           | ID:00200937 | RIMUTAKA                        | 4387   | 4815   | 5288   | 5541   | 6021   | 6364   | 6102   | 5965   | 6118   | 4938   | 4676   | 4980   | 5044   |
| 4           | ID:01N01036 | PUKERUA BAY                     | 20879  | 21565  | 22925  | 22722  | 24285  | 23718  | 24055  | 23653  | 23974  | 22362  | 21667  | 22750  | 22439  |
| 4           | ID:01N21068 | NGAURANGA - NB                  | 21379  | 21933  | 21866  | 22287  | 21579  | 19852  | 22820  | 22946  | 22085  | 22414  | 21932  | 22320  | 22522  |
| 4           | ID:05800009 | Pauatahanui East                | 12870  | 13298  | 13674  | 14133  | 14488  | 13432  | 14232  | 14563  | 14041  | 13447  | 13331  | 13461  | 13701  |
| 4           | ID:00210979 | NGAURANGA SH2 - SB              | 20529  | 21467  | 21454  | 21738  | 20802  | 19058  | 21934  | 21937  | 20661  | 21095  | 20669  | 21497  | 21130  |
| 4           | ID:00220979 | NGAURANGA SH2 - NB              | 20409  | 21291  | 21224  | 21465  | 20489  | 18741  | 21648  | 21925  | 21107  | 21480  | 20910  | 21465  | 21370  |
| 4           | ID:00600122 | STOKE                           | 19028  | 19305  | 20042  | 20282  | 21755  | 21579  | 21450  | 20881  | 20322  | 19974  | 19547  | 19694  | 19690  |
| 4           | ID:00600232 | MURCHISON                       | 1220   | 1369   | 1714   | 1775   | 2264   | 2736   | 2308   | 2026   | 2027   | 1515   |        | 1292   | 1283   |
| 4           | ID:00600100 | HIRA                            | 2724   | 2866   | 3118   | 3295   | 3638   | 4031   | 3821   | 3527   | 3356   | 2947   | 2736   | 2769   | 2787   |
| 4           | ID:06000040 | Riwaka                          | 2538   | 2806   | 3471   | 3868   | 5468   | 6737   | 5187   | 4319   | 4417   | 3137   | 2633   | 2555   | 2669   |
| 4           | ID:01S00037 | Blenheim                        | 3129   | 3371   | 3719   | 3900   | 4321   | 4657   | 4478   | 4150   | 4449   | 3349   | 3292   | 3510   | 3284   |
| 5           | ID:01S00389 | DUNSANDEL                       | 8829   | 9457   | 10292  | 10107  | 10686  | 10636  | 10636  | 10473  | 10488  | 9150   | 8794   | 9592   | 9127   |
| 5           | ID:01S00505 | EVANS St Timaru                 | 18981  | 20054  | 20888  | 21090  | 22330  | 21221  | 21155  | 20900  | 20966  | 19884  | 18936  | 19519  | 19000  |
| 5           | ID:07300064 | Springfield                     | 1526   | 1527   | 1644   | 1617   | 1800   | 2005   | 2303   | 1900   | 1872   | 1274   | 1207   | 1705   | 1605   |
| 5           | ID:07400006 | SEMI Obsolete - Cranford St     | 20424  | 20810  | 20780  | 21188  | 21073  | 19310  | 21396  | 21649  |        |        |        |        |        |
| 5           | ID:01S00144 | KAIKOURA                        | 1630   | 1938   | 2356   | 2568   | 3039   | 3519   | 3127   | 2662   | 2882   | 2049   | 1818   | 2002   | 1866   |
| 5           | ID:01S00522 | ST ANDREWS                      | 4865   | 5229   | 5734   | 5804   | 6316   | 6098   | 6201   | 6024   | 6174   | 5421   | 4905   | 5384   | 5008   |
| 5           | ID:00700108 | LEWIS PASS                      | 857    | 942    | 1192   | 1125   | 1471   | 1799   | 1416   | 1266   | 1382   | 944    | 824    | 954    | 869    |
| 5           | ID:07409005 | QE II Drive East Of Main Nth Rd | 17511  | 18395  |        | 19211  | 20067  | 17767  | 18993  | 19244  |        | 18131  |        | 17944  | 18255  |
| 5           | ID:00600454 | CHESTERFIELD                    | 2244   | 2502   | 2815   | 2947   | 3062   | 3174   | 3256   | 3861   | 2867   | 2461   | 2276   | 2381   | 2330   |
| 5           | ID:00700239 | AHAURA                          | 1120   | 1128   | 1235   | 1277   | 1296   | 1333   | 1392   | 1665   | 1319   | 1184   | 1115   | 1168   | 1107   |
| 5           | ID:00600398 | PUNAKAIKI                       |        | 774    | 964    | 1018   | 1183   | 1372   | 1327   | 1452   | 1018   | 803    | 671    | 704    | 700    |
| 6           | ID:00800336 | ALEXANDRA                       | 1840   | 1912   | 2060   | 2013   | 2464   | 2756   | 2813   | 2267   | 2317   | 1855   | 1712   | 1796   | 1917   |
| 6           | ID:01S10713 | BURNSIDE - SB                   | 14797  | 15455  | 15445  | 15906  | 15759  | 13984  | 15870  | 15803  |        | 15625  | 15051  | 15228  | 15223  |
| 6           | ID:01S20713 | BURNSIDE - NB                   | 9982   | 10497  | 10537  | 10786  | 10681  | 9627   | 10823  | 10762  | 10308  | 10676  | 10459  | 10496  | 10350  |
| 6           | ID:01S50713 | BURNSIDE - NB On Ramp           | 2401   | 2522   | 2491   | 2546   | 2497   | 2262   | 2486   | 2502   | 2427   | 2462   | 2412   | 2457   | 2483   |
| 6           | ID:01S60713 | BURNSIDE - SB Off Ramp          | 2881   | 3048   | 3051   | 3113   | 3027   | 2723   | 3092   | 3092   | 2945   | 3024   | 2955   | 2978   | 3031   |
| 6           | ID:01S40713 | BURNSIDE - NB Off Ramp          | 3168   | 3240   | 3276   | 3389   | 3326   | 2973   | 3380   | 3419   | 3261   | 3850   | 3305   | 3260   | 3287   |
| 6           | ID:01S40714 | Burnside - NB Off Ramp          | 2040   | 2175   | 2179   | 2220   | 2140   | 1954   | 2192   | 2179   | 2092   | 2084   | 2065   | 2032   | 2108   |
| 6           | ID:01S00765 | MILTON                          | 5269   | 5540   | 5978   | 6185   | 6633   | 6516   | 6850   | 6608   |        | 5734   | 5445   | 5578   | 5505   |
| 6           | ID:01S00921 | INVERCARGILL                    | 10974  | 11316  | 11268  | 11822  | 11826  | 10560  | 12147  | 12294  | 11509  | 11903  | 11640  | 11525  | 11941  |
| 6           | ID:00601147 | WINTON                          | 4232   | 4384   | 4572   | 4898   | 4948   | 4509   | 4882   | 4792   | 4656   | 4582   | 4346   | 4310   | 4236   |
| 6           | ID:01S00854 | GORE                            | 3538   | 3676   | 3952   | 4099   | 4323   | 4083   | 4416   | 4137   | 4158   | 3814   | 3462   | 3580   | 3521   |

## Telemetry Site MADT Heavy Vehicles

| NZTA Region | Site Ref    | Description                          | Aug-08 | Sep-08 | Oct-08 | Nov-08 | Dec-08 | Jan-09 | Feb-09 | Mar-09 | Apr-09 | May-09 | Jun-09 | Jul-09 | Aug-09 |
|-------------|-------------|--------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1           | ID:01N00212 | KAWAKAWA                             | 539    | 635    | 701    | 688    | 676    | 728    | 696    | 703    | 689    | 603    | 551    | 552    | 541    |
| 1           | ID:01000029 | Sth of Takou Bay Rd                  | 220    |        | 274    | 289    | 296    | 382    | 304    | 289    | 322    |        |        | 219    | 228    |
| 1           | ID:01N00274 | Nth of Maungakaramea Rd              |        |        | 1423   | 1479   |        |        |        | 1601   | 1503   |        |        | 1305   | 1314   |
| 1           | ID:01200220 | East of Brynderwyn Brq 161           |        |        | 301    | 348    | 318    |        | 286    |        | 233    |        |        |        |        |
| 1           | ID:01N00130 | Nth of Ramseys Brq                   |        |        |        | 160    |        |        |        |        | 149    |        |        |        | 131    |
| 1           | ID:01N00265 | Sth of Selwyn Avenue                 | 2170   | 2282   |        |        |        |        | 994    | 1015   |        |        |        | 812    |        |
| 1           | ID:01N00388 | HATFIELDS BEACH                      | 1099   | 1272   | 1338   | 1361   | 1467   | 1247   | 363    | 327    | 293    | 278    | 261    | 260    | 246    |
| 1           | ID:01N10459 | DRURY - SB                           | 2203   | 2468   | 2424   | 2490   | 2447   | 2278   | 2486   | 2539   | 2394   | 2250   | 2184   | 2149   | 2083   |
| 1           | ID:01N20459 | DRURY - NB                           | 2114   | 2336   | 2315   | 2386   | 2282   | 2229   | 2392   | 2427   | 2303   | 2164   | 2104   | 2061   | 1987   |
| 1           | ID:01N00339 | WELLSFORD                            | 867    |        | 940    | 957    | 989    | 1064   |        |        |        |        |        |        | 778    |
| 1           | ID:01N10440 | PANAMA Rd - SB                       |        |        |        |        |        |        |        |        |        |        |        |        |        |
| 1           | ID:01N20440 | PANAMA RD - NB                       |        |        |        |        |        |        |        |        |        |        |        |        |        |
| 1           | ID:01N10474 | BOMBAY - SB                          | 1746   | 1949   | 1959   | 2001   | 1992   | 1834   | 2006   | 2017   | 1949   | 1806   | 1741   | 1718   | 1656   |
| 1           | ID:01N20474 | BOMBAY - NB                          | 1736   | 1900   | 1940   | 1994   | 1885   | 1884   | 2001   | 2006   | 1925   | 1784   | 1742   | 1698   | 1645   |
| 1           | ID:01N00424 | Auckland Harbour Brq - Centre Span   |        |        |        |        |        |        |        |        |        |        |        |        |        |
| 1           | ID:01N10424 | Auckland Harbour Brq - Left Clip-on  |        |        |        |        |        |        |        |        |        |        |        |        |        |
| 1           | ID:01N20424 | Auckland Harbour Brq - Right Clip-on |        |        |        |        |        |        |        |        |        |        |        |        |        |
| 2           | ID:00200002 | MAUNGATAWHIRI                        | 1451   | 1588   | 1633   | 1616   | 1605   | 1593   | 1631   | 1696   | 1628   | 1542   | 1490   | 1480   | 1402   |
| 2           | ID:25A00011 | NEEVESVILLE                          | 290    | 331    | 352    | 318    | 371    | 447    | 301    | 279    | 303    | 240    | 215    | 210    | 214    |
| 2           | ID:02700011 | KAIHERE                              | 726    | 800    | 855    | 783    | 764    | 731    | 806    | 892    | 803    | 755    | 738    | 721    | 727    |
| 2           | ID:01N00526 | TAUPIRI                              | 1967   | 2176   | 2240   | 2330   | 2145   | 1975   | 2151   | 2150   | 2058   | 1915   | 1897   | 1821   |        |
| 2           | ID:01N00620 | LICHFIELD                            | 1297   | 1499   | 1565   |        | 1365   | 1289   | 1407   | 1497   | 1413   | 1270   | 1207   | 1204   | 1159   |
| 2           | ID:00300085 | TE KUITI                             | 603    | 666    | 850    | 682    | 689    | 636    | 683    | 692    | 691    | 627    | 616    | 588    | 562    |
| 2           | ID:03200074 | West of Taupo                        | 70     | 94     | 94     | 115    | 111    | 103    | 138    | 140    | 146    | 123    | 121    | 120    | 108    |
| 2           | ID:01N00580 | KARAPIRO                             | 1778   | 1879   | 1890   | 1997   | 2127   | 1867   | 1992   | 1974   | 1569   | 1361   | 1257   | 1186   | 1271   |
| 2           | ID:00200091 | WAIHI                                | 676    | 749    | 809    | 798    | 789    | 855    | 873    | 855    | 846    | 790    | 734    | 735    | 700    |
| 2           | ID:01N00729 | HALLETTS BAY                         | 697    | 766    | 797    | 839    | 823    | 821    | 847    | 862    | 798    | 979    | 714    | 725    | 697    |
| 2           | ID:00200141 | TE PUNA                              | 1016   | 1155   | 1128   | 1166   | 1099   | 1084   | 1155   | 1216   | 1213   | 1201   | 987    | 1024   | 1019   |
| 2           | ID:03010149 | TE NGA                               | 813    | 894    | 887    |        | 890    | 907    | 970    | 1352   | 1213   | 872    | 890    | 817    | 924    |
| 2           | ID:03020149 | East end of Puarenga Brq (Dec)       | 798    | 924    | 929    |        | 874    | 941    | 1056   | 1149   | 1036   | 920    | 913    | 839    | 974    |
| 2           | ID:00200204 | OHINEPANEA                           | 634    | 708    | 774    | 745    | 695    | 693    | 711    | 702    | 791    | 705    | 625    | 693    | 726    |
| 2           | ID:03000188 | LAKE ROTOMA                          | 289    | 324    | 348    | 307    | 324    | 345    | 351    | 346    | 324    | 304    | 291    | 278    | 311    |
| 2           | ID:03300030 | Sth of Maungarangi Rd Paengaroa      | 506    | 549    | 565    | 574    | 529    | 535    | 570    | 568    | 585    | 580    | 565    | 561    | 574    |
| 2           | ID:00500034 | TARUKENGA                            | 489    | 569    | 568    | 591    | 574    | 585    | 617    | 587    | 574    | 518    | 490    | 486    | 461    |
| 2           | ID:02900034 | KAIMAI                               | 1167   | 1238   | 1309   | 1286   | 1312   | 1199   | 1237   | 1245   | 1208   | 1093   | 1015   | 984    | 990    |
| 2           | ID:00500057 | WAIPA                                | 725    | 794    | 798    | 807    | 714    | 742    | 813    | 825    | 813    | 928    | 739    | 769    | 745    |
| 3           | ID:00200428 | ORMOND                               | 206    | 216    | 233    | 240    | 245    | 309    | 268    | 339    | 257    | 224    | 215    | 186    | 188    |
| 3           | ID:00200627 | TANGOIO                              | 310    | 344    | 371    | 372    | 337    | 377    | 401    | 424    | 402    | 380    | 357    | 331    | 305    |
| 3           | ID:00500230 | TE POHUE                             | 434    | 470    | 500    | 507    | 458    | 480    | 515    | 561    | 544    | 477    | 427    | 447    | 438    |
| 3           | ID:05000010 | Nth of Tutaekuri River               | 1609   | 1419   | 1397   | 1353   | 1271   | 1231   | 1366   | 1486   | 1527   | 1437   | 1218   | 1200   | 1103   |
| 3           | ID:00300171 | TONGAPORUTU Brq                      | 344    | 375    | 399    | 383    | 384    | 386    | 392    | 386    | 381    | 327    | 331    | 322    | 310    |
| 3           | ID:00300267 | TARIKI                               | 812    | 945    | 951    | 989    | 896    | 834    | 775    | 811    | 997    |        |        |        | 743    |
| 3           | ID:00300370 | WAITOTARA                            | 434    | 501    | 538    | 582    | 506    | 461    | 474    | 501    | 492    | 453    | 437    | 418    | 458    |
| 3           | ID:04500101 | OHAWBEACH Rd                         | 354    | 561    | 601    | 596    | 533    | 490    | 447    | 448    | 418    |        | 231    | 225    | 354    |
| 3           | ID:01N00930 | SANSON                               | 1281   | 1392   | 1491   | 1560   | 1482   | 1401   | 1484   | 1475   | 1428   | 1311   | 1282   |        | 1270   |



## Telemetry Site MADT Heavy Vehicles

| NZTA Region | Site Ref    | Description                     | Aug-08 | Sep-08 | Oct-08 | Nov-08 | Dec-08 | Jan-09 | Feb-09 | Mar-09 | Apr-09 | May-09 | Jun-09 | Jul-09 | Aug-09 |
|-------------|-------------|---------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 3           | ID:01N00988 | OHAU                            | 1379   | 1465   | 1535   | 1564   | 1496   | 1429   | 1515   | 1534   | 1233   | 1371   | 1337   | 1367   | 1329   |
| 3           | ID:00200755 | NORSEWOOD                       | 494    | 567    | 618    | 681    | 628    | 698    | 691    | 685    | 640    | 545    | 498    | 481    | 464    |
| 3           | ID:00300489 | MANAWATU GORGE                  | 665    | 735    | 786    | 774    | 829    | 875    | 887    | 869    | 869    | 772    | 715    | 704    | 674    |
| 3           | ID:00400133 | HOROPITO                        | 277    | 268    | 279    | 297    | 297    | 321    | 344    | 323    | 309    | 284    | 285    | 292    | 260    |
| 3           | ID:00400226 | UPOKONGARO                      | 141    | 173    | 150    | 173    | 161    | 158    |        | 172    | 192    |        | 142    | 155    | 149    |
| 3           | ID:01N00827 | HIHITAH                         |        |        | 908    | 1043   | 897    | 897    | 925    | 923    | 901    | 813    | 776    | 801    | 750    |
| 4           | ID:01N11068 | NGAURANGA - SB                  | 771    | 815    | 792    | 807    | 745    | 716    | 785    | 784    | 818    | 756    | 764    | 759    | 764    |
| 4           | ID:00200895 | CLAREVILLE                      | 477    | 598    | 622    | 674    | 593    | 587    | 638    | 642    | 608    | 490    | 467    | 453    | 504    |
| 4           | ID:00200937 | RIMUTAKA                        | 240    | 273    | 289    | 327    | 315    | 323    | 337    | 350    | 456    | 286    | 263    | 271    | 275    |
| 4           | ID:01N01036 | PUKERUA BAY                     | 1448   | 1555   | 1606   | 1657   | 1528   | 1405   | 1556   | 1582   | 1520   | 1449   | 1448   | 1455   | 1411   |
| 4           | ID:01N21068 | NGAURANGA - NB                  | 652    | 701    | 719    | 729    | 693    | 718    | 718    | 731    | 689    | 687    | 668    | 673    | 732    |
| 4           | ID:05800009 | Pauatahanui East                | 380    | 423    | 429    | 454    | 449    | 420    | 442    | 470    | 445    | 388    | 400    | 404    | 408    |
| 4           | ID:00210979 | NGAURANGA SH2 - SB              | 686    | 729    | 754    | 738    | 676    | 640    | 719    | 726    | 685    | 697    | 694    | 717    | 707    |
| 4           | ID:00220979 | NGAURANGA SH2 - NB              | 662    | 701    | 721    | 706    | 655    | 619    | 692    | 697    | 659    | 680    | 668    | 689    | 675    |
| 4           | ID:00600122 | STOKE                           | 1149   | 1211   | 1274   | 1280   | 1194   | 1236   | 1308   | 1365   | 1302   | 1219   | 1129   | 1120   | 1097   |
| 4           | ID:00600232 | MURCHISON                       | 236    | 245    | 276    | 287    | 312    | 379    | 334    | 314    | 282    | 229    |        | 189    | 212    |
| 4           | ID:00600100 | HIRA                            | 429    | 455    | 463    | 473    | 449    | 489    | 505    | 510    | 483    | 396    | 411    | 416    | 430    |
| 4           | ID:06000040 | Riwaka                          | 159    | 183    | 237    | 259    | 328    | 385    | 336    | 306    | 318    | 223    | 153    | 146    | 161    |
| 4           | ID:01S00037 | Blenheim                        | 445    | 522    | 564    | 599    | 558    | 583    | 594    | 600    | 709    | 499    | 452    | 450    | 454    |
| 5           | ID:01S00389 | DUNSANDEL                       | 1233   | 1471   | 1654   | 1587   | 1537   | 1507   | 1549   | 1479   | 1425   | 1229   | 1123   | 1145   | 1170   |
| 5           | ID:01S00505 | EVANS St Timaru                 | 1278   | 1559   | 1613   | 1651   | 1538   | 1476   | 1612   | 1578   | 1459   | 1301   | 1181   | 1158   | 1212   |
| 5           | ID:07300064 | Springfield                     | 140    | 192    | 211    | 206    | 206    | 217    | 282    | 229    | 220    | 158    | 142    | 145    | 175    |
| 5           | ID:07400006 | SEMI Obsolete - Cranford St     | 513    | 427    | 461    | 456    | 428    | 411    | 450    | 477    |        |        |        |        |        |
| 5           | ID:01S00144 | KAIKOURA                        | 367    | 430    | 468    | 500    | 490    | 508    | 522    | 493    | 495    | 424    | 393    | 393    | 380    |
| 5           | ID:01S00522 | ST ANDREWS                      | 754    | 889    | 973    | 987    | 940    | 930    | 989    | 935    | 908    | 780    | 665    | 684    | 741    |
| 5           | ID:00700108 | LEWIS PASS                      | 192    | 166    | 185    | 180    | 211    | 258    | 206    | 201    | 192    | 154    | 138    | 150    | 150    |
| 5           | ID:07409005 | QE II Drive East Of Main Nth Rd | 474    | 569    |        | 569    | 600    | 538    | 563    | 578    |        | 491    |        | 493    | 480    |
| 5           | ID:00600454 | CHESTERFIELD                    | 210    | 321    | 364    | 374    | 343    | 349    | 370    | 403    | 293    | 233    | 190    | 199    | 209    |
| 5           | ID:00700239 | AHAURA                          | 203    | 183    | 201    | 215    | 175    | 186    | 200    | 240    | 184    | 174    | 155    | 156    | 147    |
| 5           | ID:00600398 | PUNAKAIKI                       |        | 107    | 124    | 123    | 116    | 122    | 134    | 150    | 99     | 87     | 59     | 59     | 68     |
| 6           | ID:00800336 | ALEXANDRA                       | 176    | 187    | 196    | 196    | 235    | 270    | 270    | 212    | 218    | 175    | 153    | 154    | 166    |
| 6           | ID:01S10713 | BURNSIDE - SB                   | 789    | 864    | 873    | 893    | 852    | 800    | 628    | 745    |        | 576    | 723    | 722    | 727    |
| 6           | ID:01S20713 | BURNSIDE - NB                   | 530    | 463    | 607    | 625    | 585    | 560    | 621    | 645    | 597    | 536    |        | 634    | 620    |
| 6           | ID:01S50713 | BURNSIDE - NB On Ramp           | 117    | 118    | 112    | 112    | 108    | 104    | 112    | 116    | 113    | 109    | 102    | 106    | 106    |
| 6           | ID:01S60713 | BURNSIDE - SB Off Ramp          | 197    | 207    | 199    | 196    | 187    | 180    | 197    | 202    | 190    | 196    | 187    | 187    | 191    |
| 6           | ID:01S40713 | BURNSIDE - NB Off Ramp          | 185    | 188    | 193    | 194    | 185    | 178    | 199    | 208    | 197    | 218    | 192    | 185    | 187    |
| 6           | ID:01S40714 | Burnside - NB Off Ramp          | 67     | 77     | 72     | 71     | 67     | 67     | 71     | 72     | 70     | 66     | 65     | 63     | 67     |
| 6           | ID:01S00765 | MILTON                          | 632    | 737    | 823    | 803    | 857    | 804    | 908    | 888    |        | 714    | 579    | 559    | 578    |
| 6           | ID:01S00921 | INVERCARGILL                    | 412    | 441    | 410    | 443    | 454    | 412    | 464    | 460    | 419    | 411    | 415    | 412    | 388    |
| 6           | ID:00601147 | WINTON                          | 419    | 451    | 500    | 521    | 501    | 470    | 509    | 495    | 467    | 401    | 344    | 349    | 372    |
| 6           | ID:01S00854 | GORE                            | 387    | 439    | 490    | 502    | 502    | 457    | 539    | 528    | 489    | 433    | 368    | 365    | 400    |