



## Traffic Volumes Monthly Report February 2016

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#### Revision Schedule

| Rev. No | Date      | Description | Prepared by | Reviewed by        | Approved by |
|---------|-----------|-------------|-------------|--------------------|-------------|
| 1       | 23/3/2016 | Draft       | Gerald Wen  |                    |             |
| 2       |           | Final       | Gerald wen  | Pradeep Ranasinghe | Emma Harris |

# Overview

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## Summary

The purpose of this report is to provide information about changes and trends of Monthly Average Daily Traffic (MADT) on state highways at a national and regional level.

| 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                                  |

## February 2016 State Highway Traffic Highlights

### Light Vehicles

Nationally, the MADT for light vehicles was up 5.5%, when compared to the same period last year. The average monthly growth rate in 2015 was 5.5%. All regions had an increase with a range of 3.2% to 7%. Region 2 was leading the growth.

### Heavy Vehicles

Nationally, the MADT for heavy vehicles was up 0.7%, when compared to the same period last year. The average monthly growth rate in 2015 was 3.5%. Region4, region1 and region6 recorded an increase, other regions stayed at almost the same level or had a decrease.

### All Vehicles

Nationally, the MADT for all vehicles was up 5.2%, when compared to the same period last year. The average monthly growth rate in 2015 was 5.2%. All regions had an increase with a range of 3.2% to 6.3%.

## In this report

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## Technical Notes

**What is MADT?** Monthly Average Daily Traffic (MADT) is the average daily traffic volume in a given month. At each monitored location (count site), MADT is reported for light vehicles, all vehicles and heavy vehicles<sup>1</sup>. MADT is the statistical term used throughout this report.

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

**How is MADT change reported each month?**

We report MADT change for light, heavy and all vehicles, at a national and regional level. We first calculate the percentage change in MADT (light, heavy and all vehicles separately) of each site for the current month compared to the same month in the previous year. We then calculate the median of those percentage changes across all sites and report it as the national MADT change for the current month. To report each regional MADT change, we calculate the median of percent changes of the sample sites in each region.

**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.

**Site coverage**

The table below shows the number of traffic counting sites in each NZ Transport Agency region. These numbers represent the sample sizes that are used to report the National and regional MADT changes in this report.

| NZ Transport Agency Region                           | Number of Sites |
|--|-----------------|
| Northland and Auckland                               | 17              |
| Waikato and Bay of Plenty                            | 27              |
| Taranaki, Manawatu-Wanganui, Hawkes Bay and Gisborne | 19              |
| Wellington, Nelson, Marlborough and Tasman           | 17              |
| Canterbury and West Coast                            | 15              |
| Otago and Southland                                  | 19              |
| Total  | 114             |

The sites used in the report are mostly NZTA's national telemetry sites, but also including a few continuous sites managed by NZTA's regional offices.

Report should be used with caution, because of the limited sample sizes.

**Sources of variation in MADT**

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

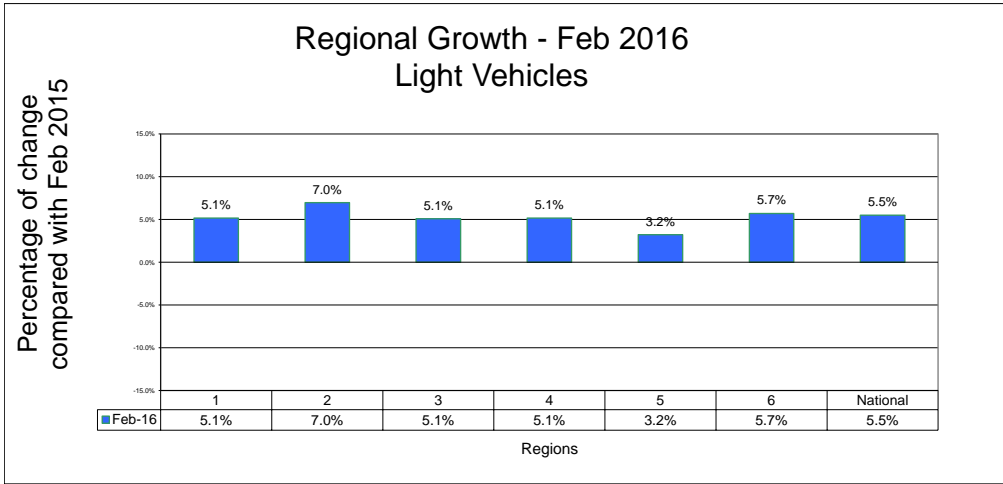
<sup>1</sup> Heavy vehicles are those with a gross vehicle mass exceeding 3.5 tonnes.

# Results: Light Vehicles

**Regions**

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

The graph below shows the MADT change compared with the same month last year. The MADT values here represent light vehicle types.



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

**All sites**

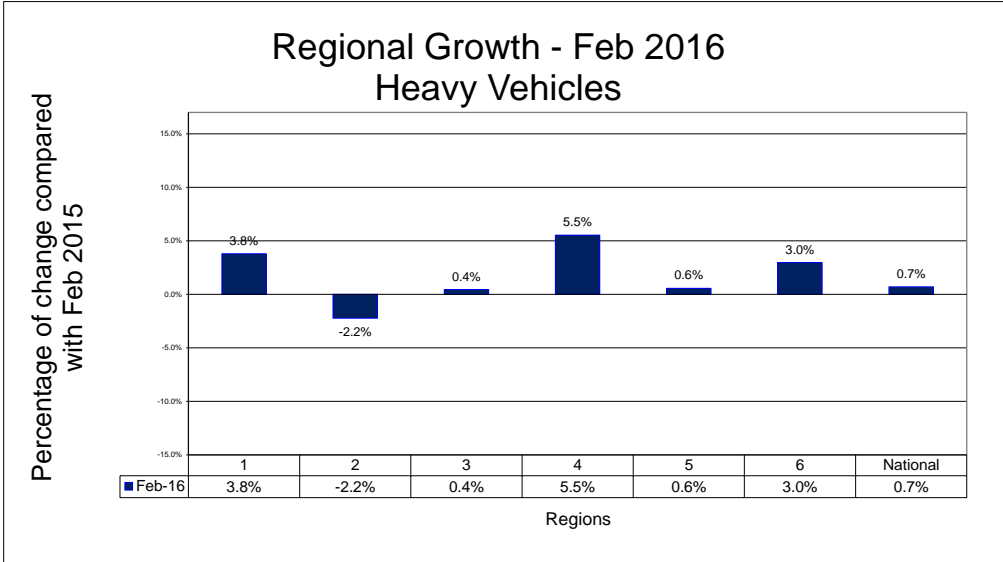
An Excel table of MADT (light vehicles) values for the past thirteen months is released with this report.

# Results: Heavy Vehicles

## Regions

Comparisons of heavy vehicle traffic across NZ Transport Agency regions as detailed below.

The graph shows the MADT change compared with the same month last year. The MADT values here represent heavy vehicles only.



| 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                                  |

## All sites

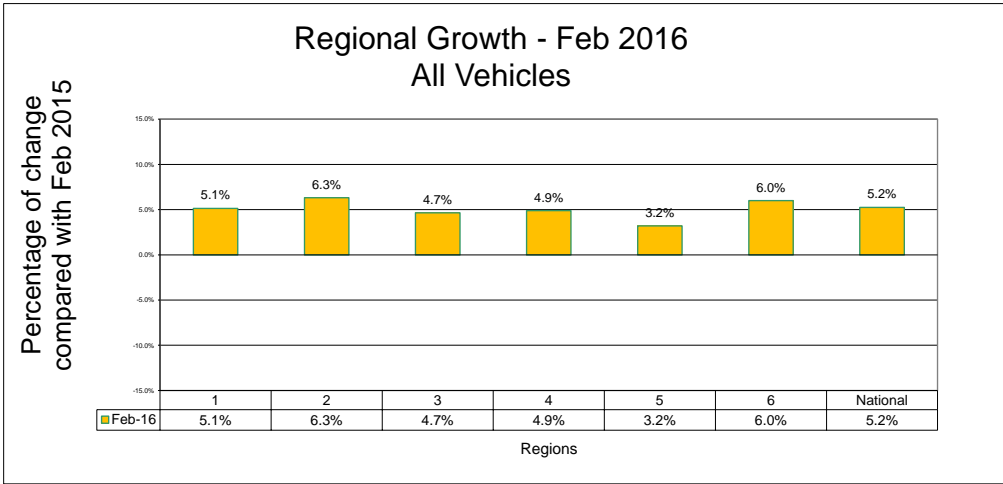
An Excel table of MADT (heavy vehicles) values for the past thirteen months is released with this report.

# Results: All Vehicles

## Regions

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

The graph below shows the MADT change compared with the same month last year. The MADT values here represent all vehicle types.



| NZTA Region Number | NZTA Region  |
|--------------------|--|
| 1                  | Northland and Auckland                               |
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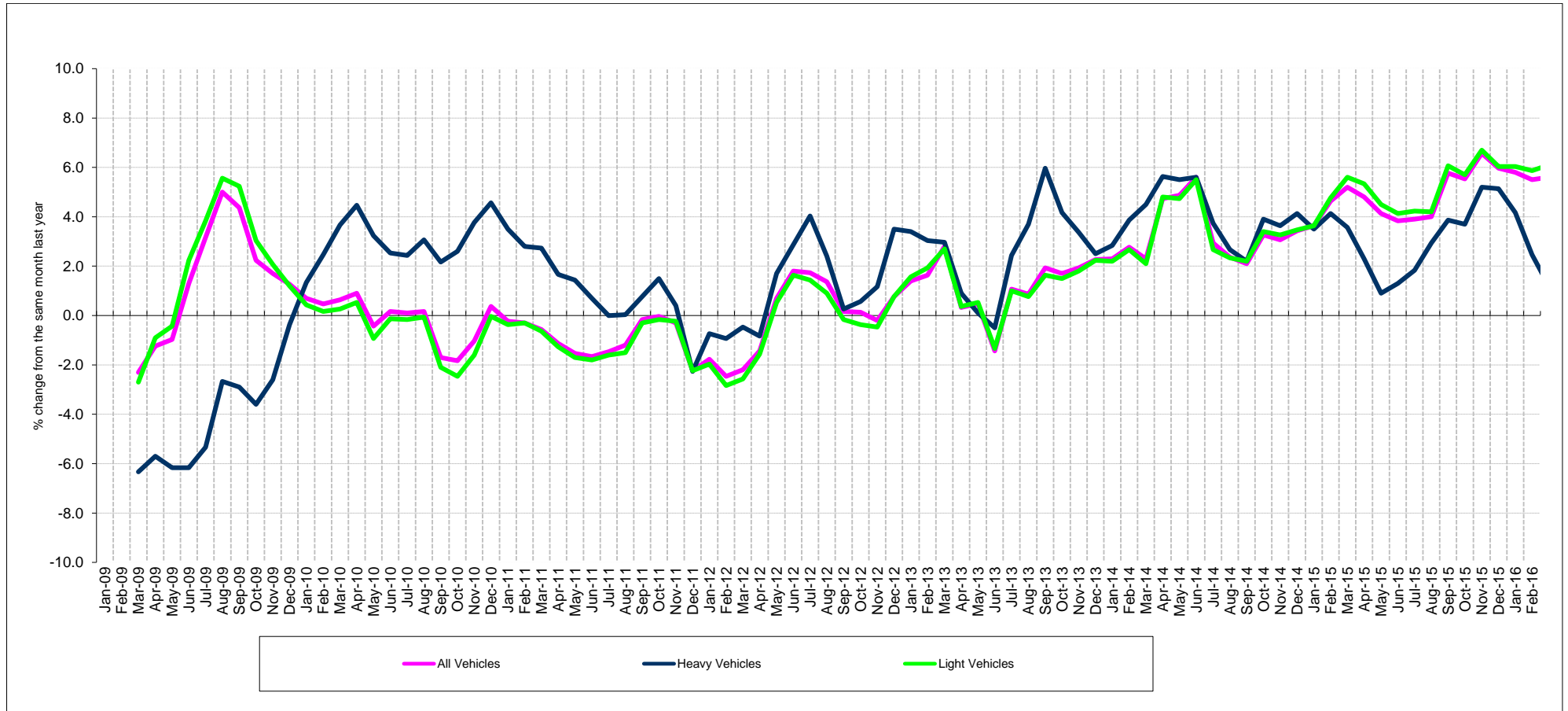
## All sites

An Excel table of MADT (all vehicles) values for the past thirteen months is released with this report.



# Nationwide State Highway Traffic Growth

Moving three months average of % change from the same month last year



# Nationwide State Highway Traffic Growth

MADT percentage change from the same month a year ago

| Year      | 2009         |                |                | 2010         |                |                | 2011         |                |                | 2012         |                |                | 2013         |                |                | 2014         |                |                | 2015         |                |                | 2016         |                |                |
|-----------|--------------|----------------|----------------|--------------|----------------|----------------|--------------|----------------|----------------|--------------|----------------|----------------|--------------|----------------|----------------|--------------|----------------|----------------|--------------|----------------|----------------|--------------|----------------|----------------|
| Month     | All Vehicles | Light Vehicles | Heavy Vehicles | All Vehicles | Light Vehicles | Heavy Vehicles | All Vehicles | Light Vehicles | Heavy Vehicles | All Vehicles | Light Vehicles | Heavy Vehicles | All Vehicles | Light Vehicles | Heavy Vehicles | All Vehicles | Light Vehicles | Heavy Vehicles | All Vehicles | Light Vehicles | Heavy Vehicles | All Vehicles | Light Vehicles | Heavy Vehicles |
| January   | -0.8         | -1.5           | -6.4           | -0.1         | -0.2           | 1.0            | -1.7         | -1.6           | 1.2            | -1.0         | -1.7           | 2.7            | 2.9          | 2.5            | 5.7            | 2.4          | 2.0            | 3.9            | 5.8          | 5.7            | 4.9            | 3.6          | 4.0            | -0.7           |
| February  | -2.4         | -1.6           | -8.9           | 1.6          | 1.3            | 4.1            | 0.0          | 0.0            | 3.7            | -3.3         | -3.8           | -0.8           | 1.7          | 1.7            | 2.6            | 3.6          | 3.8            | 4.7            | 4.7          | 5.6            | 2.2            | 5.2          | 5.5            | 0.7            |
| March     | -3.7         | -5.0           | -3.7           | 0.4          | -0.3           | 5.9            | 0.0          | -0.3           | 3.3            | -2.3         | -2.2           | -3.3           | 3.8          | 3.9            | 0.6            | 0.9          | 0.5            | 4.9            | 5.1          | 5.5            | 3.6            |              |                |                |
| April     | 2.4          | 3.9            | -4.5           | 0.7          | 0.6            | 3.4            | -3.4         | -3.5           | -2.0           | 1.3          | 1.3            | 1.6            | -4.5         | -4.5           | -0.5           | 9.7          | 10.1           | 7.3            | 4.6          | 4.9            | 1.1            |              |                |                |
| May       | -1.6         | -0.2           | -10.3          | -2.4         | -3.1           | 0.4            | -1.2         | -1.3           | 3              | 3.1          | 2.5            | 6.8            | 2.1          | 2.2            | 0.2            | 4.0          | 3.6            | 4.3            | 2.7          | 3.1            | -2.0           |              |                |                |
| June      | 3.1          | 3.0            | -3.7           | 2.2          | 2.1            | 3.8            | -0.4         | -0.6           | 1.1            | 1            | 1.1            | 0.2            | -1.9         | -1.7           | -1.2           | 3.1          | 2.8            | 5.2            | 4.2          | 4.4            | 4.8            |              |                |                |
| July      | 8.0          | 8.7            | -2.0           | 0.5          | 0.5            | 3.1            | -2.8         | -2.9           | -4.1           | 1.1          | 0.7            | 5.1            | 3.0          | 2.5            | 8.3            | 1.7          | 1.6            | 1.7            | 4.8          | 5.2            | 2.7            |              |                |                |
| August    | 3.9          | 5.0            | -2.3           | -2.2         | -2.8           | 2.3            | -0.4         | -1.0           | 3.1            | 2.0          | 0.9            | 1.9            | 1.5          | 1.5            | 4.0            | 2.3          | 2.6            | 1.1            | 3.0          | 3.0            | 1.3            |              |                |                |
| September | 1.2          | 2.0            | -4.4           | -3.4         | -4.0           | 1.1            | 2.7          | 3.0            | 3.3            | -2.6         | -2.1           | -6.2           | 1.3          | 0.9            | 5.6            | 2.3          | 2.4            | 3.8            | 9.5          | 10.0           | 7.6            |              |                |                |
| October   | 1.6          | 2.1            | -4.1           | 0.1          | -0.6           | 4.4            | -2.4         | -2.5           | -1.9           | 1.0          | 0.1            | 6.0            | 2.3          | 2.1            | 2.9            | 5.2          | 5.2            | 6.8            | 4.1          | 4.1            | 2.2            |              |                |                |
| November  | 2.3          | 2.1            | 0.7            | 0.2          | -0.2           | 5.8            | -1.2         | -1.2           | -0.2           | 1.0          | 0.6            | 3.7            | 2.2          | 2.4            | 1.6            | 1.7          | 2.2            | 0.3            | 6.1          | 6.0            | 5.8            |              |                |                |
| December  | -0.1         | -0.6           | 2.3            | 0.8          | 0.7            | 3.5            | -3.1         | -3             | -4.7           | 0.3          | 1.6            | 0.8            | 2.3          | 2.2            | 3              | 3.4          | 3.0            | 5.3            | 7.7          | 8.0            | 7.4            |              |                |                |

## Appendices

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MADTs of the sample sites for the past thirteen months in Excel format

- Light Vehicles
- Heavy Vehicles
- All Vehicles