



**GeoSmart**  
Geospatial Solution Provider

# TRAFFIC DATA

**Live Feeds**

**Historical Data**

**Data Visualisation**

**IPENZ  
Transportation Group  
2011 Conference**

**Auckland**

**Mar 2011**




# Agenda

1. GeoSmart Overview
2. Traffic Data
3. Live Data Feeds
4. Historical Data
5. Data Visualisation
6. Product Examples
  - Traffic data on AAMaps and AARoadwatch web sites
  - Journey times
  - Trip Forecasts
  - Detailed analysis at Roundabouts and Intersections
  - Launch of Traffic data on Car Navigation




# GeoSmart - What we do

## DATA COLLECTION




**Field Capture**

- GPS Driving
- Road data
- Map data
- Business POI
- Amenity POI
- Cultural POI




**Imagery**

- Aerial
- Satellite
- Terrestrial



**Cadastral**

- Property data



**Address**

- NZ Post
- LINZ



**Live content**

- Real Time Traffic
- Parking
- Flight data
- Ferry
- Bus
- Events



**Data Processing & Aggregation**

## CORE SERVICES

- CARTOGRAPHY
- CAR NAVIGATION
- FLEET MANAGEMENT SOLUTIONS
- WEB MAPPING SOLUTIONS
- ROUTE2GO
- AA TRAFFIC

# AA Traffic – A Real Time Traffic Information Service

## Traffic Incident Information

- NZ Police
- Radio Stations
- NZTA – State highways
  - Local Authorities
  - Civil Defence
- AA members and Public

## Road Works Information

- Local Authorities
- NZTA – State highways
- AA members and Public

## Traffic Flow Information

- Fleet Management Systems

Real time  
Traffic  
Information  
System

AA TRAFFIC

System aggregates all incoming content into structured output format

SMS Service

Email Service

RSS feed

XML feed

RDS-TMC service

IVR service



# Traffic Data

- **Journalistic Data**
  - Accidents / Incidents / Roadworks / Slips / Weather events
- **Traffic Flow data**
  - Averaged speed value for each time segment
  - Minimum and Maximum speed values
  - Vehicle Count
  - Recorded for each side of the Road
- **Journey Times**
  - The LIVE time to travel between any two points in NZ



# Live Data Feeds

**GeoSmart can supply customised LIVE data feeds for:**

- Supply of live data for Real Time Transportation flow analysis of:
  - Road segment
  - Intersection
  - On/off Ramp
  - Around Supermarkets / Stadiums / Conference centres/ etc
- Monitoring the affects of roadworks on the Local Community with “Auto Alerts”



# Historical Data

## Historical data is available for:

- NZ wide or customised areas
- 11 Months of archived data to date
- All data stored in 15 minute time segments
- Data is available for:
  - Journalistic Data
  - Traffic Flow data
  - Journey Times



# Historical Data

## Clients can request Historical data :

- For a particular time period
  - *From 15 minutes to 24 hours*
- For a particular date range
  - *For particular day through to 11 months of stored data*
- For a particular section of road
  - *Clients can request a specific start and end point along a road segment*
- Based on a customised Area





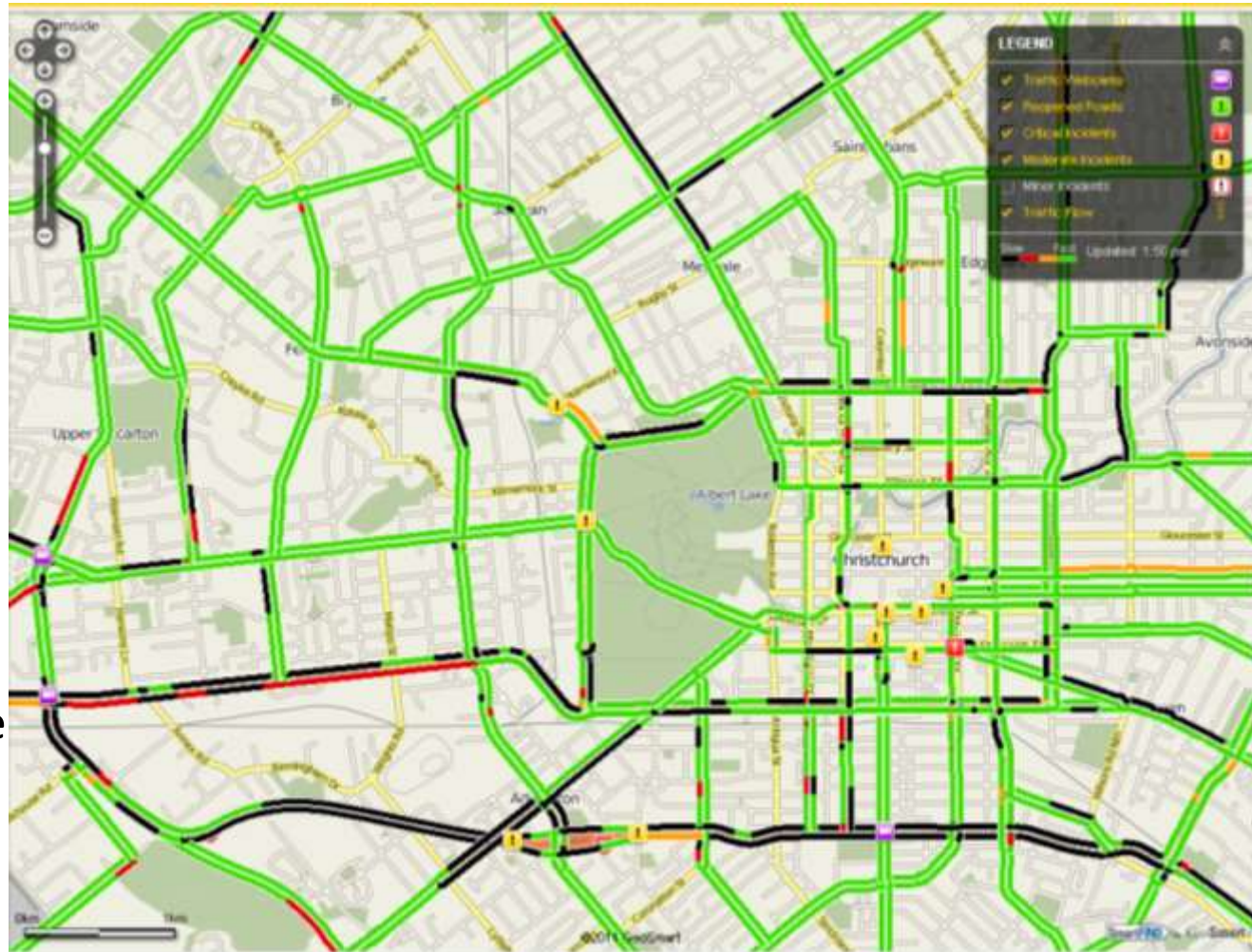
# Data Visualisation

All Traffic Data can be overlaid onto our Web Mapping base using our API's

Journalistic and Flow data is recorded to our road centrelines based on the following:

- Road segment ID
- Direction of Road Segment
- Speed Limit of the Road Segment

Clients can combine the Traffic data over the map data to visualise the performance of the transportation network



From [www.AARoadwatch.co.nz](http://www.AARoadwatch.co.nz)

# Product Examples



# AAMaps and AARoadwatch

Available at [www.AAMaps.co.nz](http://www.AAMaps.co.nz) and [www.AARoadwatch.co.nz](http://www.AARoadwatch.co.nz)

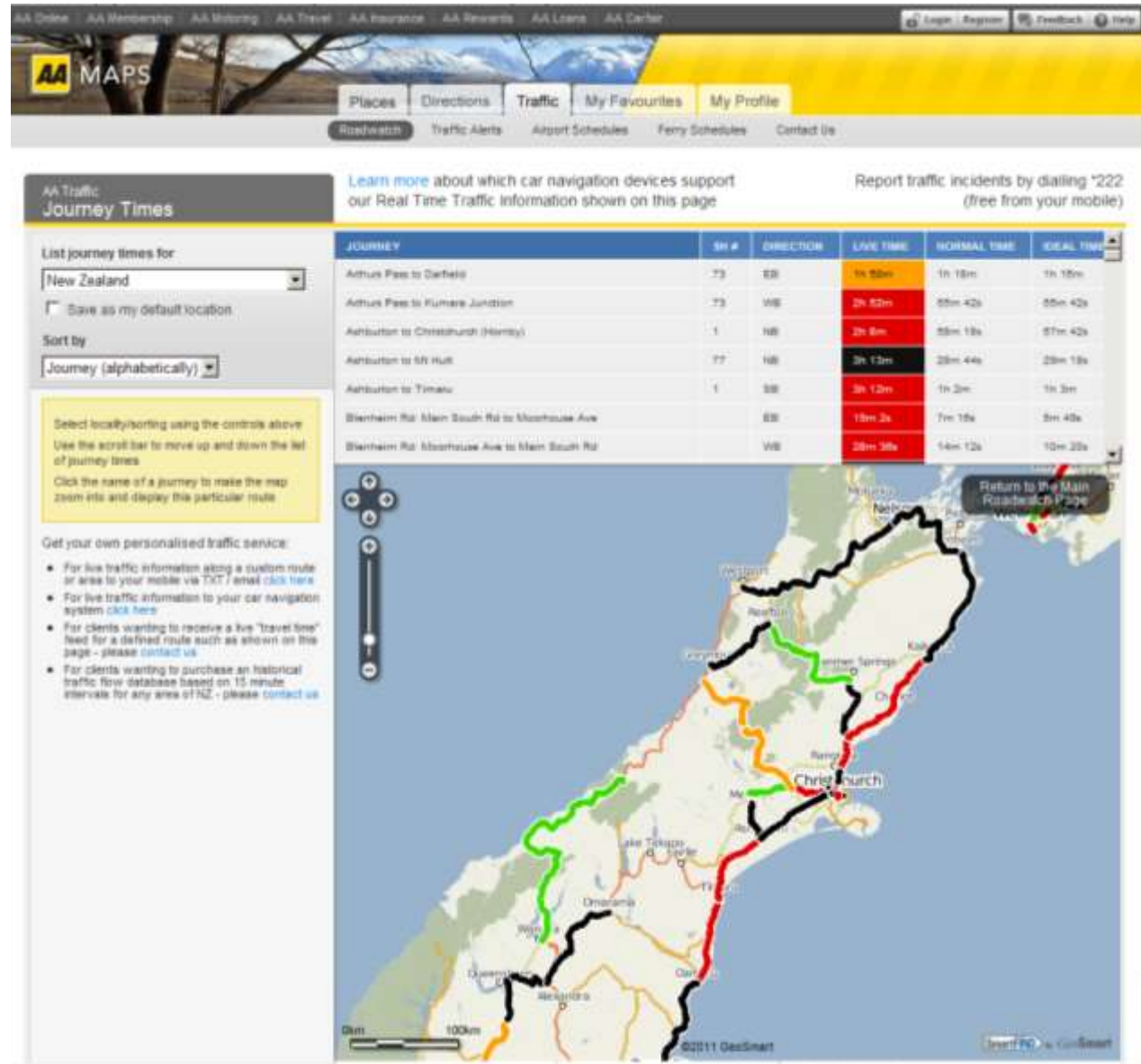
- Map display of the actual location of each road event
  - Includes accidents, incidents, weather related events and road works.
  - Shows both Current and Forecasted events.
  - Forecasted events can be events coming up for each night only or can be for events well into the future
- Map display of Traffic flow information across NZ
- Can filter information based on areas



# Journey Times - AARoadwatch

## About to Launch

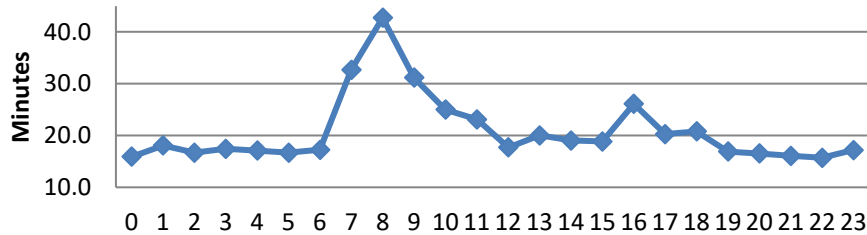
- We can select a specific route(s) and report live travel times for every minute showing:
  - Live travel time
  - Normal travel time (historical average)
  - Ideal Travel time (no congestion)
- Routes can be on any main roads across NZ
- Roads are highlighted based on trip time performance:
  - Black <25% ideal speed
  - Red is 25-50% of ideal speed
  - Yellow is 50-75% of ideal speed
  - Green is >75% of ideal speed



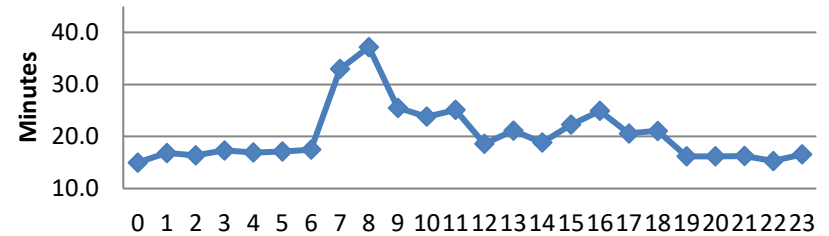
# Trip Times - Forecast

Four months of averaged traffic speed data for the route from Albany to Queen Street for each hour of the day

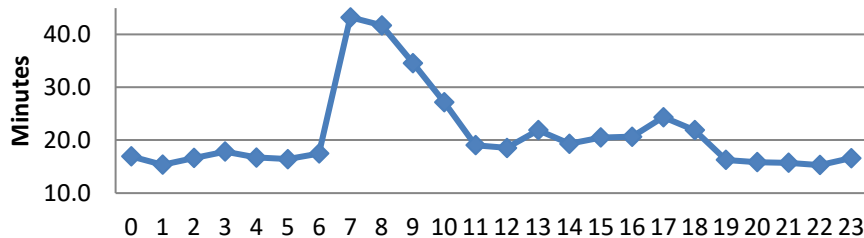
### ALBANY - QUEEN ST - Monday



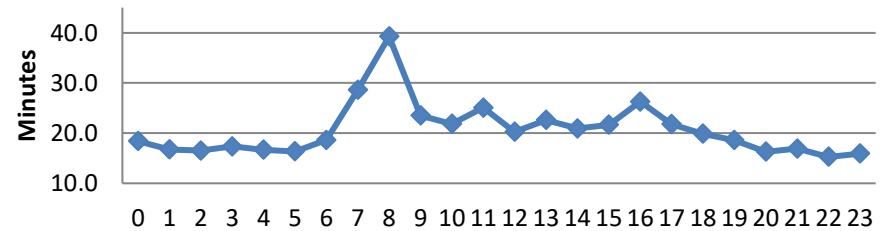
### ALBANY - QUEEN ST - Thursday



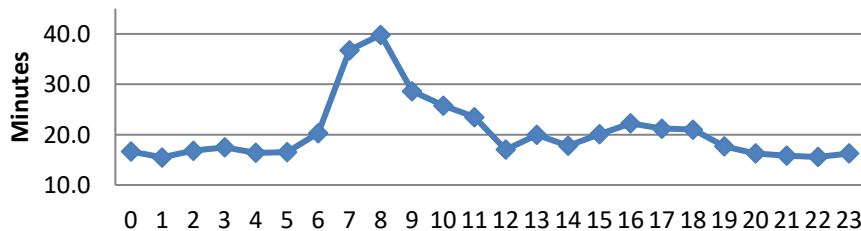
### ALBANY - QUEEN ST - Tuesday



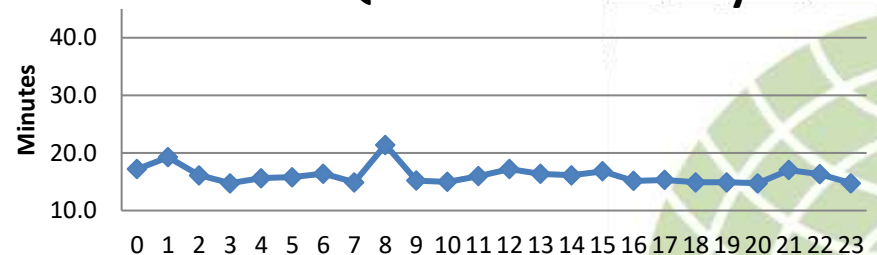
### ALBANY - QUEEN ST - Friday



### ALBANY - QUEEN ST - Wednesday



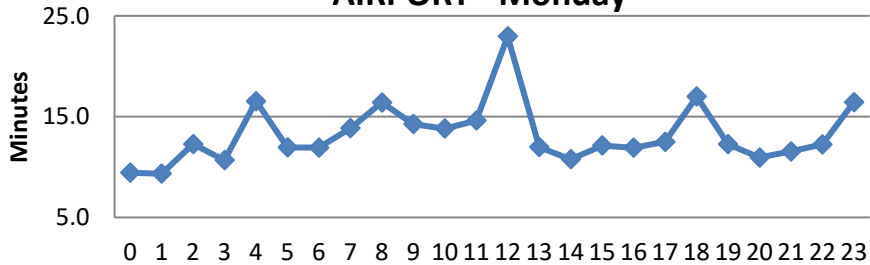
### ALBANY - QUEEN ST - Saturday



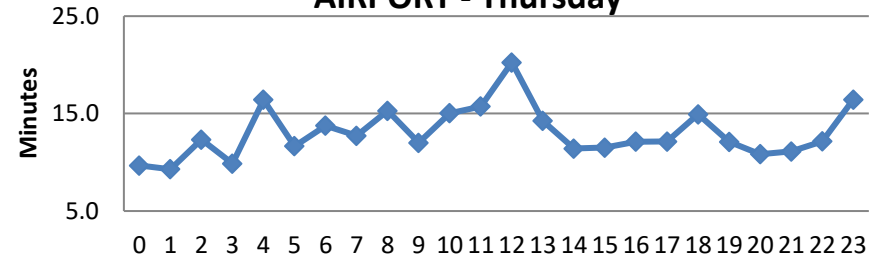
# Trip Times - Forecast

Four months of averaged traffic speed data for the route from the Railway Station in Central Wellington to the Airport for each hour of the day

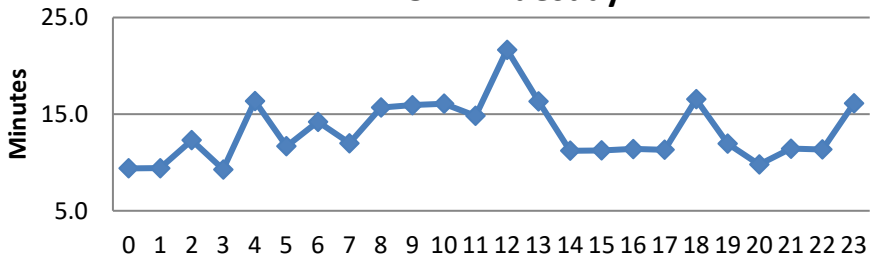
**WELLINGTON - RAILWAY STATION TO AIRPORT - Monday**



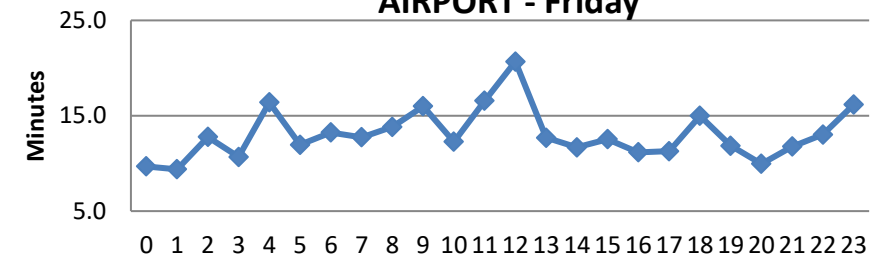
**WELLINGTON - RAILWAY STATION TO AIRPORT - Thursday**



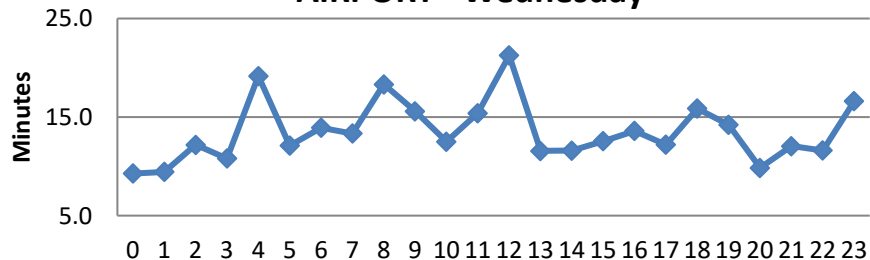
**WELLINGTON - RAILWAY STATION TO AIRPORT - Tuesday**



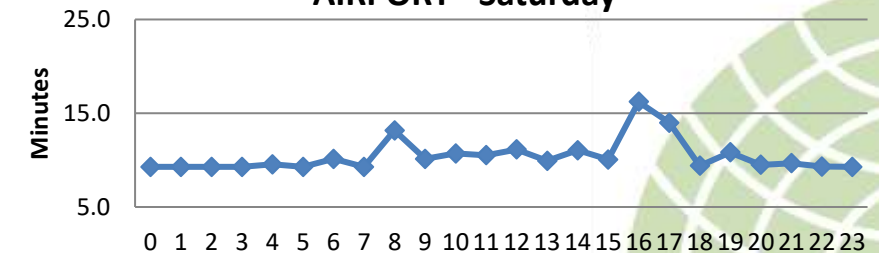
**WELLINGTON - RAILWAY STATION TO AIRPORT - Friday**



**WELLINGTON - RAILWAY STATION TO AIRPORT - Wednesday**



**WELLINGTON - RAILWAY STATION TO AIRPORT - Saturday**









# Car Navigation – Tomtom LIVE



**First country outside of Western Europe to be CERTIFIED by Tomtom to deliver HIGH DEFINITION TRAFFIC**

Launched Traffic flow combined with Journalistic data on Tomtom HD Traffic in Dec 2010

- Highlights level of congestion
- Displays Journalistic events
- Shows where incidents are along journey

Our AATraffic content is also available on:



# Thank you

Please come and see us on our Stand

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[www.aamaps.co.nz](http://www.aamaps.co.nz)

[www.aatraffic.co.nz](http://www.aatraffic.co.nz)

[www.aaroadwatch.co.nz](http://www.aaroadwatch.co.nz)

[www.geosmart.co.nz](http://www.geosmart.co.nz)

