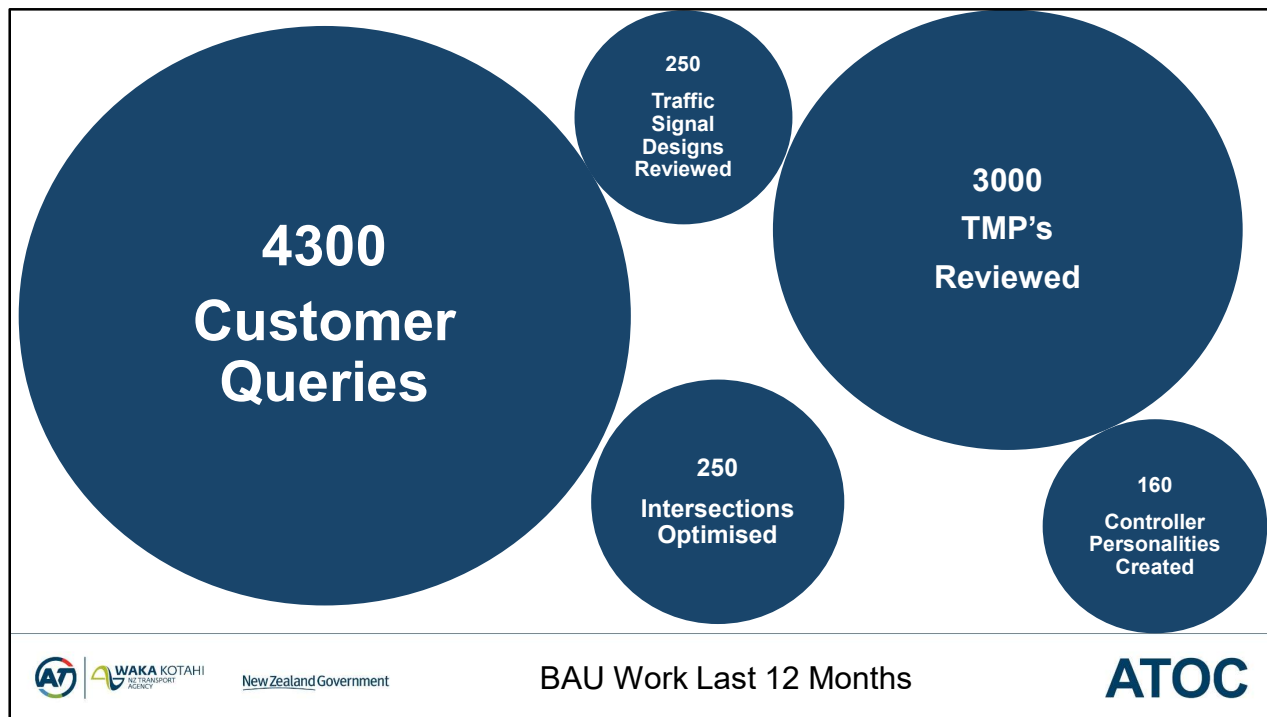


ATOC – Auckland Update

SNUG 2024

New Zealand Government





14 engineers under out manager Aqil Imam,

BAU Work completed over the last 12 months.

23 New sets of signals installed in the last 6 months.

Not much time left to play. ☹️

← Back

Te Atatu Interchange - IMT - KWP - 29/5/24

Created 29/05/2024 7:16

Approaches 8 Active | 0 disabled

- ▶ Entry 14 Te Atatu Road South Bound
- ▶ Te Atatu Road South Bound
- ▶ Exit 14 Te Atatu Road West Bound
- ▶ Te Atatu Road West Bound
- ▶ Te Atatu Road North Bound
- ▶ Northwestern Motorway West Bound
- ▶ Northwestern Motorway East Bound
- ▶ Exit 14 Te Atatu Road East Bound

TomTom Travel Information Tools

WAKA KOTAHI
NEW ZEALAND TRANSPORT
AGENCY

New Zealand Government

ATOC

← Back

Te Atatu Interchange - IMT - KWP - 29/5/24

Created 29/05/2024 7:56

Approaches 8 Active | 0 disabled

- ▶ Entry 14 Te Atatu Road South Bound
- ▶ Te Atatu Road South Bound
- ▶ Exit 14 Te Atatu Road West Bound
- ▶ Te Atatu Road West Bound
- ▶ Te Atatu Road North Bound
- ▶ Northwestern Motorway West Bound
- ▶ Northwestern Motorway East Bound
- ▶ Exit 14 Te Atatu Road East Bound

Te Atatu Road South Bound
Approach
✕

Travel time ⓘ

96 s

Free flow travel time ⓘ

75 s

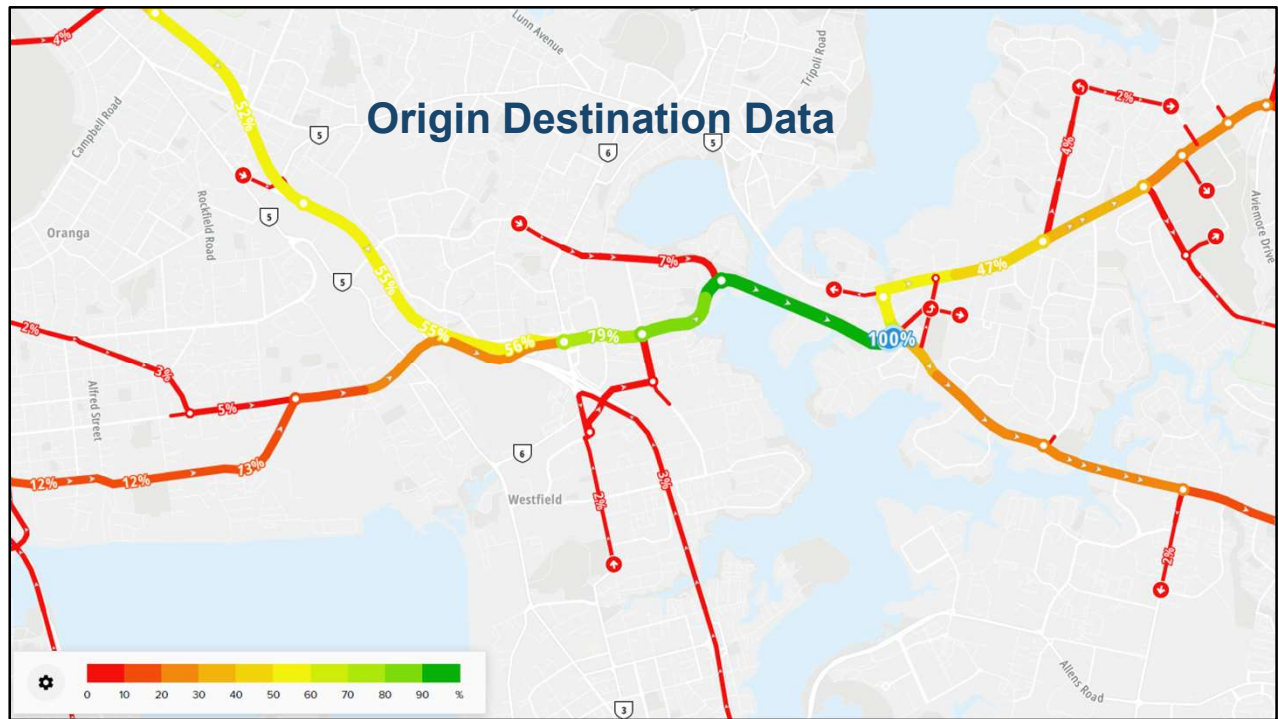
Historical data BETA

Data type: Queue length | Aggregation method: Average | Timeframe: 8 days ⓘ

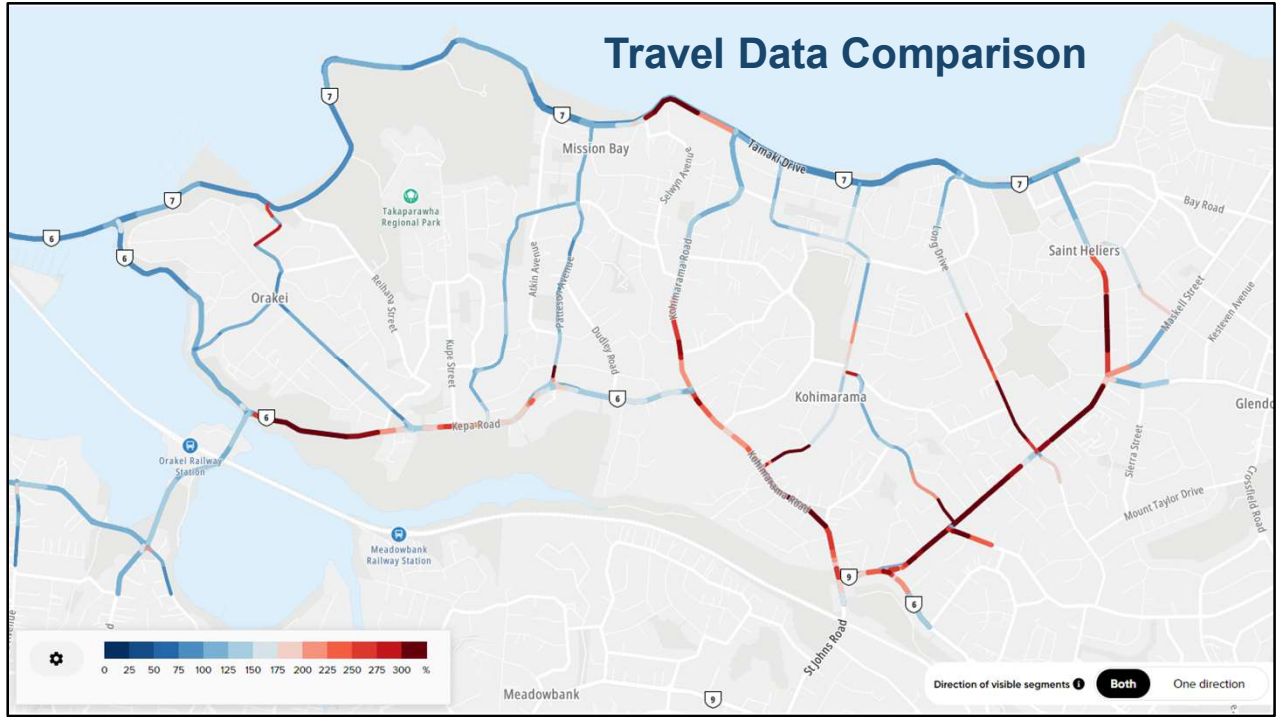
AUTO REFRESH DATA 34 s

New Zealand Government

ATOC



OD Tool, great for detours, time of day phasing, lane splits etc.



SOI Route Monitoring (sourced from TomTom API)

9/4/2024 8:39:22 AM

Last Refreshed



Route Name	Travel Time	Typical Travel Time	% Travel Time over Typical Travel Time
Tristram Ave Westbound	596	211	182%
Constellation Dr Eastbound	471	191	147%
Manukau Rd Inbound	1558	730	113%
Hillsborough/ Godley Rd Inbound (via White Swan Rd, Donovan St, Kinross St)	2521	1350	87%
Esmonde Rd/Lake Rd Inbound	736	430	71%
Manukau Rd Outbound	940	565	66%
Albany Hwy Outbound	1007	624	61%
Dominion Rd Inbound	1635	1017	61%
Sandringham Rd Inbound	1076	697	54%
Mangere/Massey Rd Westbound	1352	891	52%



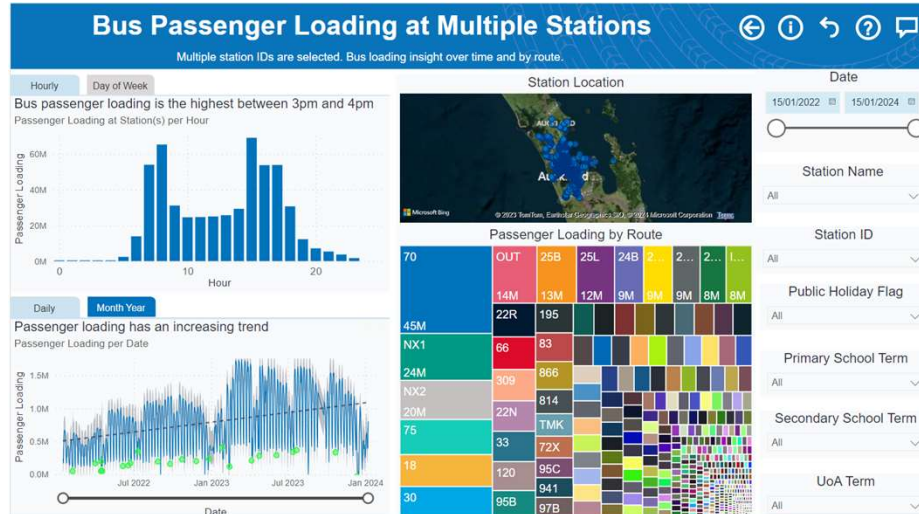
Note:

This report only shows the top 10 worst performing SOI routes according to % Travel Time over Typical Travel Time as of Last Refreshed.



For monitoring 60 routes across Auckland.

Surfacing Data For Better Decisions



New Zealand Government

ATOC

A big obstacle for our team is access to Data.

We are working to surface existing data to help inform our engineer decisions.

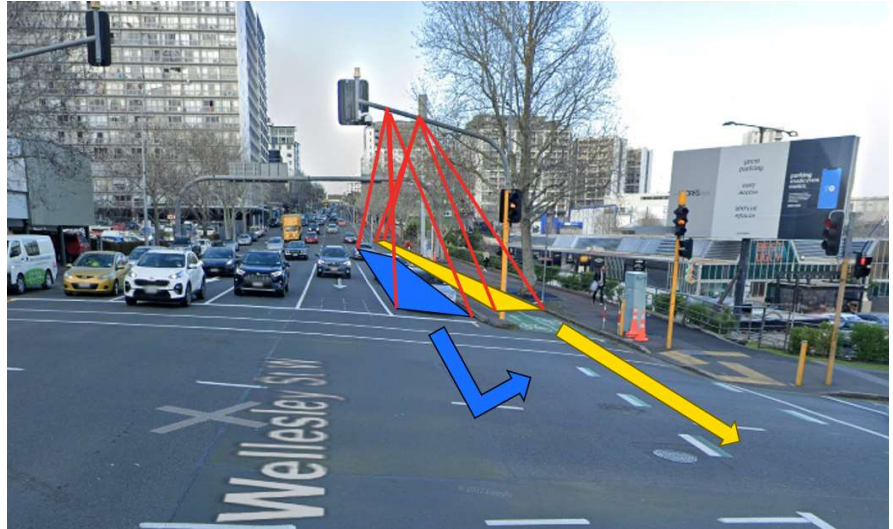
This dashboard gives us easy access to bus patronage information.

This just lets us know how many people are in buses at each intersection.

Working on travel time.

Advanced Sensor Trials

Queue Detection



WAKA KOTAHU
NZ TRANSPORT
AGENCY

New Zealand Government

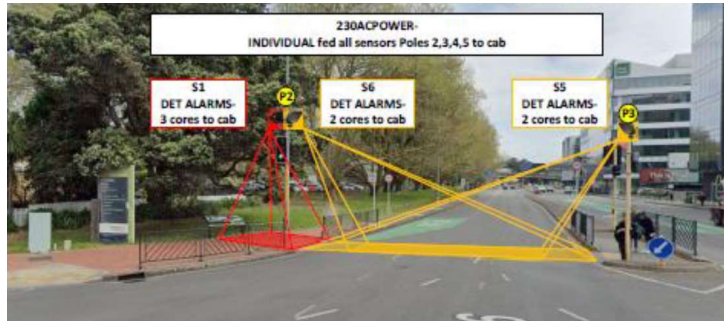
ATOC

TIBC. Trials are going well.

- 1. Crowd Detection to reduce delays and improve safety** – Give more crossing time if large crowds detected. Trial was a success. Looking for new sites where this feature will be of benefit.
- 2. Vehicle Queue Detection** – Better management of queues, reducing delays.
- 3. Adaptive Pedestrian Protection** – Change left turn red arrow time based on which side of the crossing the pedestrian is coming from. (full protection or half protection)

Advanced Sensor Trials

Adaptive Pedestrian Detection



Crowd Detection



WAKA KOTAHĪ
NZ TRANSPORT
AGENCY

New Zealand Government

ATOC

- 1. Crowd Detection to reduce delays and improve safety** – Give more crossing time if large crowds detected. Trial was a success. Looking for new sites where this feature will be of benefit.
- 3. Adaptive Pedestrian Protection** – Change left turn red arrow time based on which side of the crossing the pedestrian is coming from. (full protection or half protection)
4. Loop replacement Trial, testing different devices
20 sites last 12 months, looking at 40 in the next 12 months.

Other Projects

- MOVA trial
- SCATS SPE – Bus Priority
- Google Greenlight



WAKA KOTAHI
NEW ZEALAND
TRANSPORT
AGENCY

New Zealand Government

ATOC

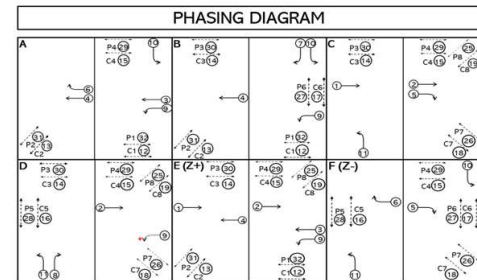
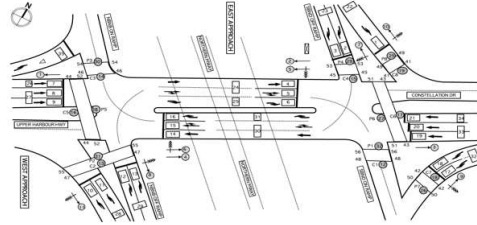
1. This is a trial evaluation by NZTA.

MOVA is an alternative to SCATS Control for isolated intersections.

2. Google Greenlight. We asked to join their research trial. Part of their research arm. They are using AI to analyse their google travel data to try and recommend improvements to signal timing, more aimed at fixed time systems.

3. SCATS SPE slowing rolling out. Only a few dozen sites currently. Investigating usage with emergency vehicles.

Motorway Interchange - Flexibility



New Zealand Government

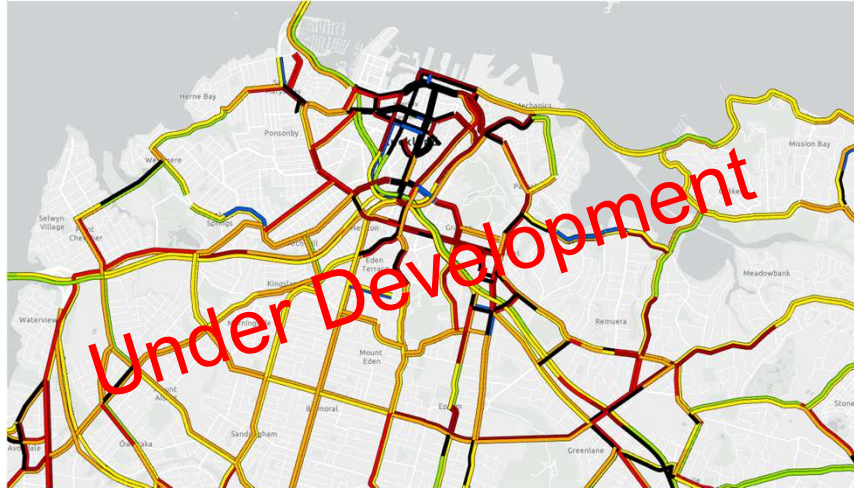
ATOC

We are currently developing a different way of operating our interchanges to make it easier to manage our interchanges when road works are being done or detours are in place.

Traditional phasing ensured a set sequence that had to be followed which generally works well at peak times, but this caused issues off peak.

So we are just trialling more flexible controller personality.

Surfacing Traffic Volume Data for Traffic Management



WAKA KOTAHI
TRANSPORT
AGENCY

New Zealand Government

ATOC

40-50% of team time is spent completing up to 250 TMP reviews every month.

We want to reduce this by surfacing our traffic volume data in a format to provide to contractors to reduce the number of TMP's that need to come to us for review.

We completed our work mapping thousands of detectors to road segments on the network.

We are working with AT to connect the data sets so that this data can be shared to third parties easily.