Operating a network; enhancing incident response

We help New Zealand grow by keeping Auckland moving.
The Auckland Motorway Alliance:
Network extent
From Puhoi to Pokeno

Titfords Bridge
Brigham Creek Road RAB
Maioro Street
SH20
SH20A ~Verissimo Drive RAB
SH20B Orrs Road
SH18
SH16
Quay Street / Tamaki Drive

SH22
Adams Drive

Pokeno
SH2
SH1
SH25 RAB

Auckland Motorways

NZ TRANSPORT AGENCY
Traffic chaos after Auckland Harbour Bridge crash

Three of the bridge's four northbound lanes were closed for more than three hours. Source: 1 NEWS
Typical minor
Minor crash
Minor asset damage
Road users / broken-down vehicles
Typical Serious Incidents
Asset damage
Truck Rollovers
Spills
Spills
Spills
Serious crash
Multi Car Pile-up
Vehicle fire
Protest
Tidal inundation
Bridge Strikes
SH1 Penrose Bridge Strike
Congestion Effects

Bridge Strike
Congestion Effects

Conditions at time of incident; time = 0 seconds
Congestion Effects
Post incident; time = +120 seconds
“Every minute counts”

For unplanned events, congestion recovery time is not linear.
Where have we come from?
Current Level of Service
Responding resource to be on the AMA network within 30 minutes 24/7:

OUR VISION: GREAT JOURNEYS TO KEEP AUCKLAND MOVING

OUR PRIORITIES: SUCCESS IS: OUR 2018-2019 FOCUS:
KEEP PEOPLE SAFE A land transport system that is free from harm: 1. Our culture is driven by Zero Harm, Safe System and Sustainability principles.
2. Collaborate with partners on initiatives that enhance the well-being of people and the wider environment.

IMPROVE CUSTOMER EXPERIENCES Customers trust us to deliver intuitive experiences that meet their needs and preferences: 1. Develop with the Transport Agency & Auckland Transport a shared understanding of customer needs and customer levels of service.
2. Actively work with the Transport Agency & Auckland Transport, applying this shared customer understanding to utilise better Auckland's existing transport infrastructure to improve liveability.
3. Minimise the impact of works and incidents on the transport system.

2. Share our data and insights, and actively work together on transport technology initiatives using our operational and analytical knowledge.

ACHIEVE ORGANISATIONAL EXCELLENCE A people-centred and strategy-led organisation that delivers more innovative, responsive and cost-effective services: 1. Our people are clear on our Strategy, and we hold ourselves to account for its delivery.
2. Maintain our alignment with the Transport Agency through transparency and collaboration.
3. Understand the value we create for the Transport Agency, and focus on those activities.
4. Deliver TOC8 with 7% savings and KRA's well above "average".
5. Promote innovation within our organization and with our partners.

CONNECT AND DEVELOP REGIONS Improved regional and interregional transport system service quality for people, freight, and business: 1. Work with partners to strengthen the resilience, safety, and efficiency of the transport system through and adjacent to Auckland.
2. Share our ideas and practice to support development in other regions.

SHAPE THE LAND TRANSPORT SYSTEM Transport sector decision-making, investment and regulatory and policy interventions are based on a shared long-term view of the land transport system: 1. Provide our partners with operational and system insights into the Auckland motorways and highways.
2. Collaboratively develop a shared understanding of the state of the motorway system and the pressures that cause changes in it.

TARGET RAPID GROWTH Improved customer experience of urban travel in Auckland and transfer of initiatives for the benefit of other high-growth urban areas: 1. Provide our partners with insights into current Auckland system performance.
2. Actively engage with the Transport Agency and Auckland Transport on connected journeys solutions for people, freight and business in high-growth urban areas.

OUR VALUES: SPEAK UP AND SHARE, STRETCH THE BOUNDARIES AND MAKE IT HAPPEN
Observed incident cycle

Figure 1. Anatomy of an incident
How did we see improvement?

Key areas:

#1 Relationships
- Key stakeholders
- Unified command
- Assisting our neighbouring network

#2 Preparedness
- Training
- Overlapping areas of response
- Agreement in service delivery

#3 ‘Getting there quicker’;
- Nimble response
- Strategic deployment
- Working towards road restoration

#4 ‘Do more’
Relationships:
Where can we make real change onsite?

- **PEOPLE:** Familiar faces, share understanding.
- **SAFETY:** Working together amongst traffic
Relationships: Integration and support to ATOC-Smales
Case Study –
Vehicle resting in berm (Trees) SH1 NB between Papakura to Takanini
Case study; errant truck 04 July 2016

Vehicle resting in berm (Trees) SH1 NB between Papakura - Takanini

Northbound Travel Times

SH1 NB Travel Times-Drury to Manukau

Incident Occurrence
Vehicle recovery begins
Network recovers
Morning peak
Case study; errant truck 04 July 2016

Vehicle resting in berm (Trees) SH1 NB between Papakura - Takanini

What would happen if incident ran into peak?

Network recovers
Preparedness: Training

Drive the correct decisions and appropriate treatments;

• Identify the opportunities for improvement;
• In-house training developed and delivered;
• Involve key stakeholders.
EOC Facilities
AMA Emergency Operations Centre (EOC)
Traffic Incident Manager (TIM)
Performs the role of NZTA recovery Manager:

- Duty Engineer
- Supervisor / Team Leader / Leading Hand
- Emergency Services (Police, Fire & Emergency) [Incident Control]
- ATOC-Smales (May initiate a response and escalate)

Auckland Motorways
Preparedness: Incident Response Crews - Day

- Traffic Response Unit (Floating)
Preparedness: Incident Response Crews - Night

- TRU On Call
- Duty Engineer On Call
Incident Response Crews
Incident Response Crews
‘Getting there quicker’
Enhancing our ability to attend as soon as possible

- Development of a traffic response TMP
- Registration of vehicle livery to the Agency
- Vehicle lighting fit out
Do more: Traffic Response Unit
Do more: Traffic Response Unit
Clearing Blocked Lanes
Push Bars – Nudge Bars
Clearing Blocked Lanes
Do more: Tow Truck
Do more: Traffic Response
Vehicle Recovery
- Water
- Petrol
- Diesel
- Jack
- Broom
- Impact wrench
- Tow Rope
- Small Tools
- Jump starter

Spare PPE & Investigation Equipment

Charging station

Fire Extinguishers

Welfare Amenities

First Aid Kit

TRU Equipment

Blower

Delineation Devices

Spill Kit

Spare PPE & Investigation Equipment

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TRU Functions
Data capture: Mobile Road
Knowledge Transfer

Road Incident Management Guide (Draft 2017)

Comprehensive Edition

Auckland Motorways
End

Questions.