

Eastern Line Rail Service Performance

Glossary

Auckland Council	(AC)
Auckland Electrification Project	(AEP)
Auckland Transport	(AT)
Compulsory Stop Board	(CSB)
Electric Multiple Unit	(EMU)
Temporary Speed Restriction	(TSR)

Executive Summary

The April 2012 Board Meeting received a report relating to rail service performance over the months of January and February 2012. Whilst rail performance across the network has improved following the reduction of TSRs (Temporary Speed Restrictions) post-summer construction works by KiwiRail, the performance of the Eastern Line remains lower than other lines. This report provides an update on Eastern Line service performance compared to other lines and confirmation of the measures underway that will improve performance.

Recommendations

It is recommended that the Board:

- i). Receive the report
- ii). Notes the work being delivered to improve service delivery

Current Rail Performance by Line

The latest performance for May (the first full month of Manukau Line service delivery) is presented at Table 1. Both punctuality (% of services which complete their journeys and arrive within 4 minutes and 59 seconds of schedule) and service delivery (the % of services which reach their destination) performance in May showed improvement on previous months.

Table 1: May service performance by line

Line	Punctuality	Service Delivery
Western	81.3%	98.5%
Southern	75.5%	98.0%
Onehunga	95.6%	97.8%
Manukau	90.3%	98.4%
Eastern	71.0%	98.8%
Total Network	81.4%	98.3%

Service punctuality trends since July 2012 by line are illustrated in Diagram 1.

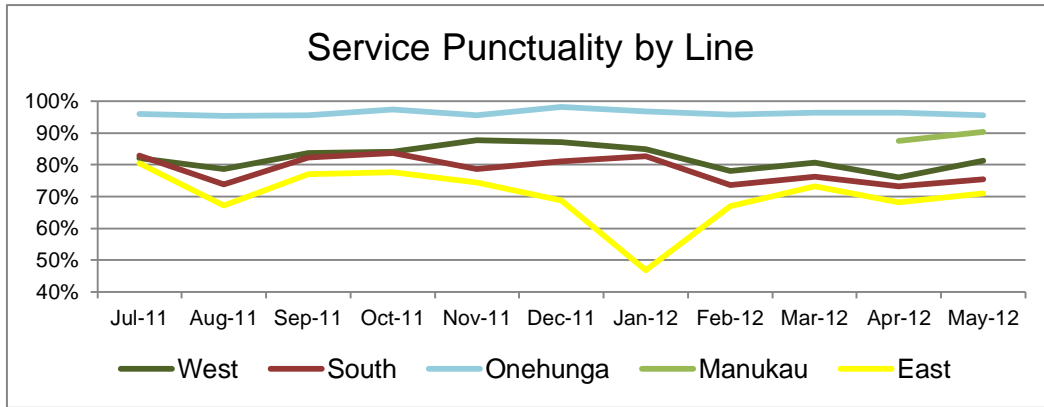


Diagram 1: Performance by line since July 2011

Eastern Line Service Classification

Prior to the timetable change implemented on 15 April 2012 Eastern Line services were designated as any service that operated on the route between Britomart and Westfield via Glen Innes and Sylvia Park as illustrated at Diagram 2. Following the April 2012 timetable change, most of the services that previously commenced or terminated at Otahuhu were extended to form the Manukau Line services and consequently have now been grouped as Manukau Line services for reporting purposes. Eastern Line services are reported as those that commence or terminate at either Papakura or Pukekohe and operate to Britomart via Glen Innes.

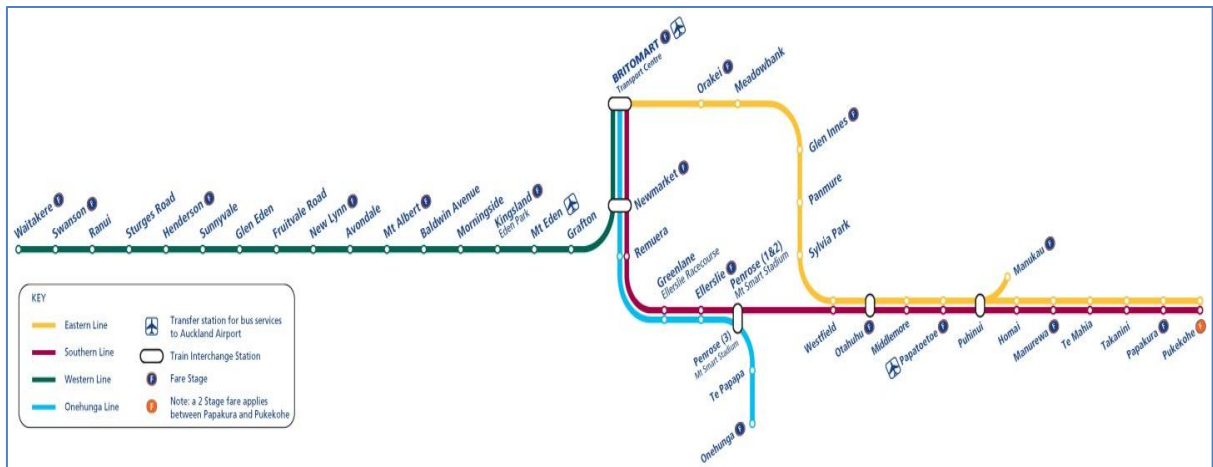


Diagram 2: Schematic network diagram showing combined line of routes

For Eastern Line passengers between Westfield and Britomart via Glen Innes the combination of the Eastern Line and Manukau Line performance statistics represent actual service delivery. Diagram 3 illustrates this combined service punctuality performance and the continued improving service punctuality experienced by Eastern Line passengers between Westfield and Britomart.

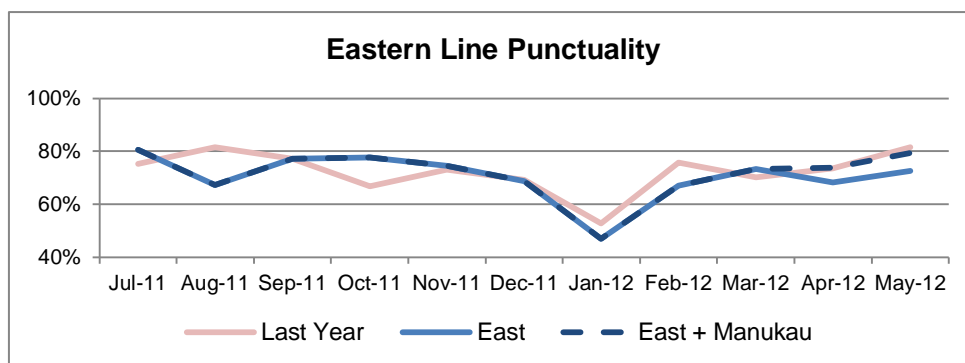


Diagram 3: Eastern and Manukau Line performance combined

Performance Cause by Line

There are five main causes of delay to services:

- Network upgrade – e.g. upgrades of track and signalling to support ten-minute peak services and preparations for EMUs
- Infrastructure failure – e.g. failures of signals, points and equipment used for the safe control of train movements
- Operations – e.g. variable passenger loadings result in extended station dwell times at different times of the day
- Train faults / breakdowns
- Other causes – e.g. weather events, actions of others and conflicts with freight trains

Due to the different characteristics, frequency of service and stage of infrastructure and network upgrade, each of these high-level contributory factors has a differing impact on each of the service lines. Eastern Line service provision is currently disproportionately affected:

- Infrastructure network upgrade: Over the last 6 months there have been numerous construction sites between Otahuhu and Papakura as EMU depot construction continues and AEP resignalling works completed. Some of these worksites have required the use of CSBs (Compulsory Stop Board) protection (Train Control authority to progress a train through a worksite) or have been sufficiently invasive resulting in infrastructure faults or TSRs whilst track settlement occurs post-works. In comparison the delivery of upgrade works on the Western Line has been reduced significantly over the last 12 months improving service performance compared to the Southern and Eastern Lines.
- Signals and points as part of the network electrification: The remaining package of works between Wiri and Papakura has been completed over the last 6 months leading up to Queen's Birthday weekend. Other lines were completed prior to the Southern and Eastern Lines.
- Operations: Due to the continued increase in patronage across the network additional boarding time is now required at some key stations on the network. Several of these are on Eastern Line services between Sylvia Park and Britomart due to the volume of passengers now using these inner stations. A review and recast of the existing timetable is underway which will result in a more realistic timing of services.
- Other causes (conflicts with freight trains): The portion of track over which Eastern Line train services travel has the highest density of freight train movements on the Auckland Metro area. Eastern Line services have been more prone to delays following freight trains than any other line.

Next Step Performance Improvements

The April 2012 Board paper outlined a number of actions that are being taken to address rail performance issues in the medium-term. The following short-term actions are also underway:

- The upgrade of the signalling system was effectively completed over Queen’s Birthday weekend with the commissioning of the final section between Wiri and Papakura. It is anticipated that the number of signal faults will reduce as a result of this upgrade. The new system also allows trains to operate at normal speed in both directions on either track (bi-directional) rather than the previous arrangement where each track was signalled for a single direction of travel only. A key benefit of this is that it provides a means of services bypassing a disabled train albeit at reduced frequencies.
- A recast of the existing timetable will provide a more balanced spread of services on the Eastern Line and more accurate journey times to cater for the increase in patronage which has occurred since September 2010. This is planned for September/October 2012. Expectations are that this will result in a significant improvement in Eastern Line service performance with a three to four percentage point uplift across the network.
- Further process work between KiwiRail and Veolia Transport to ensure re-scheduling of delayed freight trains do not impact on scheduled passenger services is progressing.

WRITTEN BY	Mark Lambert Manager, PT Operations	
RECOMMENDED by	Greg Edmonds Chief Operations Officer	
APPROVED FOR SUBMISSION by	David Warburton Chief Executive	