

**Legislative Council Panel on Transport  
Subcommittee on Matters Relating to Railways**

**MTR Tsuen Wan Line Service Disruption on 21 October 2010**

The Subcommittee on Matters Relating to Railways under the Legislative Council Panel on Transport requested the Administration to provide a paper on the service disruption of the Tsuen Wan Line (TWL) of MTR Corporation Limited (MTRCL) on 21 October 2010. The cause of the incident and the contingency measures adopted by MTRCL are set out in the paper of the Corporation at Annex. The Administration's assessment on the handling of the incident by MTRCL and follow-up actions taken with MTRCL are set out in this paper.

**The Incident**

2. The incident was caused by the overhead line contact wire breakage which occurred at Platform 2 of Yau Ma Tei Station, TWL towards Central. As a result, the train service between Yau Ma Tei and Jordan Stations was suspended. The contact wire breakage was attributed to the combination of multiple independent factors.

3. Initially, there was a traction motor fault on the incident train causing high short-circuiting direct current passing from the overhead line through the pantograph and the train onboard circuit breaker (which was installed as the first line of protection for the motor).

4. Secondly, the onboard circuit breaker failed to interrupt the high short-circuiting direct current flow. As a result, the protection system of the overhead line section between Prince Edward and Yau Ma Tei Stations was activated to cut off the power supply.

5. Thirdly, after the incident train had stopped at Yau Ma Tei Station, despite the power supply to the incident overhead line section had been cut off, high electrical current was intermittently passed from the adjacent overhead line section between Cheung Sha Wan and Prince Edward Stations to the incident overhead line section when the following train passed through the two overhead line sections. The heat of the high short-circuiting direct current, repeated for two pantographs of the following train passing through the above overhead line sections, gradually caused overheating of the contact wire.

6. Fourthly, the pantographs of the incident train were not successfully lowered as required under the established procedures before the Operations Control Centre (OCC) tried to resume the power supply to the incident overhead line section for recovery of the train service. After two unsuccessful attempts to resume the power supply, the overhead line contact wire eventually broke due to repeated heating by the high short-circuiting direct current.

7. After MTRCL's recovery works, train service resumed gradually at 9:57 a.m. Given the scale and the duration of service disruption of this incident, the Government considered the incident serious. After the incident, the Electrical & Mechanical Services Department (EMSD) directed MTRCL to conduct fleet check on the concerned pantographs, traction motors and circuit breakers. The fleet check was completed with no abnormality found.

8. Because of the incident, the train service of TWL was converted to loop services, running at every four minutes between Tsuen Wan Station and Yau Ma Tei Station; and every six minutes between Jordan Station and Central Station. Public announcements were made by MTRCL on the trains and in the stations of TWL and other railway lines to inform passengers of the changes of train service patterns.

9. In accordance with established contingency arrangements, MTRCL mobilised emergency bus (e-bus) services to fill the service gap and convey train passengers in both directions between Yau Ma Tei Station and Tsim Sha Tsui Station via Jordan Station. The first e-bus from Nathan Road outside Tsim Sha Tsui Station departed at 7:53 a.m. and that from Yau Ma Tei Station departed at 8:10 a.m. According to the report by MTRCL, the Corporation deployed about 115 additional staff to support Yau Ma Tei Station and affected stations including key interchange stations during the incident.

10. Upon notification of the incident by MTRCL, TD's Emergency Transport Coordination Centre (ETCC) immediately alerted other public transport operators for the provision of supplementary relief transport, as well as cross-harbour tunnel companies for possible increase of traffic volume arising from additional vehicle trips. TD also advised passengers via radio stations to consider using the Tung Chung Line or the Tseung Kwan O Line and other public transport modes to cross the harbour. Intending passengers of TWL were advised to interchange at Mei Foo Station for West Rail Line on journeys to Tsim Sha Tsui.

11. E-bus service was maintained until 10:20 a.m. A total of 72 e-buses were deployed with 156 trips operated carrying a total of about 6,000 passengers.

### **Impact on Passengers**

12. According to MTRCL, about 100,000 passengers who travelled on MTR trains along the Nathan Road corridor between 7:00 a.m. and 10:00 a.m. on weekdays were affected by this incident. As the incident took place during peak hours on a working day, a large number of rail passengers on TWL heading for Tsim Sha Tsui and Central were unable to continue their journeys on the trains upon reaching Yau Ma Tei Station. Some might have avoided TWL whilst some had had to change for MTRCL's e-buses or other public transport services. Although planned contingency arrangements were implemented by MTRCL, there was confusion in the information conveyed to the stranded passengers and chaos in the boarding activities for e-buses at Hamilton Street.

### **Main issues of Concern**

13. Apart from the delay caused by the incident, passengers were most dissatisfied that (a) MTRCL failed to give them clear and precise information about the train services available and the operation of the e-buses; and (b) the lack of effective crowd control measures at the boarding point for e-buses at Yau Ma Tei Station. There were strong requests from the public for MTRCL to review their implementation of contingency measures, to improve dissemination of information to the affected passengers, and to provide additional staff during handling of incident.

### **Government's Assessment**

14. Given the prolonged delay caused by the incident during the morning peak period and the scale of impact on rail passengers, the Government considered the incident a major and serious one.

15. Preliminary review of the incident suggests that by and large, MTRCL was able to follow the contingency procedures. However, there were a number of areas in which deficiencies were glaring. They include :

- (a) Alert System - MTRCL informed TD's ETCC of the occurrence of the incident (at 7:06 a.m.) 20 minutes after the first tripping of the circuit breaker; whereas according to the established

procedure, the notification should have been made within eight minutes (i.e. by 6:54 a.m.) MTRCL's explanation is set out in paragraph 40 of MTRCL's paper at Annex.

- (b) E-bus Operation - Better arrangements should have been made for earlier arrival of the e-buses and much more orderly boarding at the designated locations. The routing and operation of e-buses have to be reviewed to enhance operational efficiency minimising delay caused to passengers and undue inconvenience to other road users.
- (c) Communication with the Public - Precise and full information should have been disseminated in time to inform the passengers about the incident, the impact of the incident to the train service, and contingency arrangements put in place, to enable them to plan their onward journey, including taking alternative transport modes. Moreover, information should be updated as recovery work progresses, so that the affected passengers can make informed decisions for their journey.
- (d) Staff Preparedness - Station staff should have been more conversant with the contingency plans, have undertaken drills at regular intervals and have been properly equipped for ready implementation of contingency plans. A sufficient pool of manpower should have been prepared and mobilised for guiding passengers and crowd control at stations and street level.

16. EMSD agreed with MTRCL's preliminary findings on the cause of the incident. The protection system of overhead power supply system was proved to be sound. However, the failure mode of the traction motor and circuit breaker requires further investigation. While awaiting findings as to why the traction motor and circuit breaker failed, EMSD has asked MTRCL to take necessary actions to enhance their maintenance of onboard equipment including the pantographs, traction motors and circuit breakers.

### **Follow-up Actions with MTRCL**

17. EMSD has discussed with MTRCL on the cause of the incident and conducted inspections on the overhead line and train equipment concerning the incident. EMSD has also followed up with MTRCL on implementation of improvement measures. In particular, MTRCL has instructed the traction motor and circuit breaker supplier to investigate the

failure of the incident circuit breaker and propose improvement measures. In addition, MTRCL would, with immediate effect, enhance their inspection and maintenance frequency of the concerned pantographs, and onboard circuit breakers pending the successful implementation of the supplier's recommended improvement measures. MTRCL would also install visual indication device in the driving cab to confirm the "pantograph down" status to train captain for his subsequent confirmation with OCC. Before the completion of installation of visual indication device, train captains have been instructed to activate the pantograph control button twice whenever he is required to lower the pantographs on their trains.

18. The Transport and Housing Bureau and TD have reviewed with MTRCL the service-related contingency arrangements deployed during the incident, as well as discussed with MTRCL the required improvement measures to prevent recurrence of the problem. MTRCL has undertaken to put in place the following improvement measures :

- (a) Alert System - To strengthen internal operating procedures of OCC to ensure strict adherence to established procedure regarding timely notification to TD of any incidents affecting train services and the issue of appropriate "Alerts".
- (b) E-bus Operation and Station Specific Response - To carry out a comprehensive review with TD and the Police on the routings and boarding/alighting points for more efficient and effective operation of the e-buses; to deploy more staff to assist in crowd control and queuing arrangements at the boarding points; to improve directional signage inside incident stations and at street levels for clearer guidance to passengers to e-bus pick-up points; and to conduct regular drills with actual mobilisation of e-buses. Each station should devise station-specific contingency plans which can be deployed to handle extended train service disruptions under different scenarios.
- (c) Communication with the Public - To enhance communication with passengers with the aid of additional equipment such as digital stanchions and giant information displays to advise passengers of the cause of incident, loop service patterns and alternative transport routes / modes; to conduct a system-wide review of passenger communication to deliver swift, accurate and more customer-oriented public announcements.

- (d) Staff Preparedness - To step up training and equipping of MTR station staff, especially in handling enquiries and giving guidance to passengers at times of emergencies; and to strengthen their crowd management and communication skills.

19. EMSD will follow up with MTRCL to ensure satisfactory resolution of the investigation, as well as full and effective implementation of the improvement measures by MTRCL. TD will work together with MTRCL to refine the existing contingency plans and continue to monitor the full and effective implementation of the improvement measures undertaken by MTRCL.

Transport and Housing Bureau  
November 2010

**Legislative Council Panel on Transport  
Subcommittee on Matters Relating to Railways**

**MTR Tsuen Wan Line Train Service Disruption  
on 21 October 2010**

**Purpose**

This paper provides information on the three-hour suspension of train service between Yau Ma Tei and Jordan Stations on the MTR Tsuen Wan Line due to a power fault on a train which led to breakage in the overhead line at Yau Ma Tei Station.

2. The MTR Corporation is aware of the inconvenience that it caused to passengers as a result of the train service suspension and wishes to offer its sincere apologies. A detailed technical investigation into the cause of the incident has been conducted with the aim of identifying improvements to prevent a recurrence. The Corporation is also mindful of the crowded scenes at the emergency bus pick-up point in Yau Ma Tei on the day and comments from passengers regarding the information provided about the train service disruption, interim service arrangements and alternative transport arrangements. The Corporation has reviewed seriously its established contingency arrangements and has identified several areas for improvement.

**The incident**

3. At 6:46 a.m. on 21 October 2010, the Direct Current Circuit Breaker (DCCB) for the overhead line section between Prince Edward and Yau Ma Tei stations in the Central-bound direction (Section 642) tripped open, cutting off power supply to trains in the section. Train T48, which had just departed Mong Kok Station, was de-energised and coasted under its own momentum to berth at Yau Ma Tei Station. The Train Captain of T48 reported to the Operations Control Centre (OCC) that he had heard some noises from above the train and saw a flash of light reflected off the tunnel wall. At the time, the in-train computer was indicating a fault in the train's power supply system. Arrangements were made for all passengers of T48 to alight and the train to be sent back to the depot for inspection.

4. At 6:47 a.m., the DCCB for another overhead line section in the Central-bound direction - that between Prince Edward and Cheung Sha Wan stations (Section 641) - also tripped open. Train T49 was just

approaching Prince Edward Station at the time. The Train Captain reported that he heard some noises and saw a flash of light in the tunnel ahead. However, there was no fault indication on his train.



5. While OCC was able to restore power supply to Section 641 between Prince Edward and Cheung Sha Wan stations, it was not able to do so for Section 642 between Yau Ma Tei and Prince Edward stations. Yau Ma Tei Station staff deployed to investigate on-site reported that the overhead line was broken at a point above the second car of T48.

6. A “Major Incident” alert was declared at 7:03 a.m. and Transport Department was informed at 7:06 a.m. A Service Disruption notification (Red Alert) was sent at 7:13 a.m. to other public transport operators requesting their assistance by strengthening their services.

7. Train service was suspended between Yau Ma Tei and Jordan stations and service on the Tsuen Wan Line was maintained in two loops:

- (i) Between Tsuen Wan and Yau Ma Tei stations at 4-minute intervals.
- (ii) Between Jordan and Central stations at 6-minute intervals.

8. Emergency buses were arranged to shuttle passengers between Yau Ma Tei and Tsim Sha Tsui stations. Passengers were also advised to take alternative MTR routes to their destination or to take other modes of public transport.

9. On a normal weekday, about 100,000 passengers travel along the affected section of the railway between 7:00 a.m. and 10:00 a.m. The Corporation estimates on 21 October, some 70,000 passengers might have taken other modes of public transport or rescheduled their trips to later periods after learning of the train service disruption as MTR patronage figures during the incident period was down by that number. Correspondingly, cross harbour patronage on the Tung Chung Line and Tseung Kwan O Line saw an increase of about 25,000 passengers. Another 6,000 passengers took the emergency buses.

10. Maintenance engineers were deployed immediately to repair the broken overhead line and normal train service resumed at 9:57 a.m., one hour ahead of original forecast.

11. After the incident, the Corporation has conducted a detailed technical investigation into the cause of the overhead line breakage and reviewed the contingency arrangements deployed with a view to identifying areas for improvement.

### **Cause of Overhead Line Breakage**

12. Findings from the technical investigation show that the incident was caused by two key events :

- (i) T48's circuit breaker did not function normally.
- (ii) T48's pantographs were not lowered as required.

Each event on its own would not have caused the overhead line breakage. In fact, the overhead line DCCB performed its design function and tripped open as part of the fail-safe design of the railway. In spite of the equipment failure experienced, passenger safety was never at risk.

13. Initially, an electrical short-circuit in one traction motor onboard T48 resulted in an excessive amount of high current being drawn through the train's power supply system. The onboard circuit breaker failed in its function to stop the current flow. Acting as a second line of protection, the overhead line DCCB detected the excessive flow of high current and tripped open to cut off power supply between Yau Ma Tei and Prince Edward stations.

14. According to established procedures, when a DCCB trips open and a train in the section reports a fault, the OCC would instruct the Train Captain to lower the train's pantographs to obtain physical separation between the train and the overhead line before attempting to close the DCCB and restore power supply. Records show that OCC had requested the Train Captain of T48 to lower the pantographs and the Train Captain confirmed he had operated the control button to lower the pantographs. OCC attempted twice to close the DCCB, but power could not be restored to the affected section. Later, the investigation found T48's pantographs had not been successfully lowered and remained in contact with the overhead line when the DCCB was being closed. The

pantograph unit including the control button inside the driving cab was subsequently inspected and tested. The Corporation has tried to recreate the circumstances again by lowering the pantographs. It was found to be functioning normally and no fault could be established to cause failure of the lowering of the pantographs.

15. On each attempt to close the DCCB, a high current was sent through the overhead line and drawn into T48 at the point where the pantograph touched the overhead line, resulting in more short-circuiting and DCCB being tripped open.

16. The situation had been exacerbated previously by T49 “bridging” the two overhead line sections when it approached Prince Edward Station. When the first and second pantographs crossed from the energised Section 641 into the de-energised Section 642, it sent more high current down the overhead line and into T48 until the DCCB of Section 641 also detected an abnormal current flow and tripped open.

17. The strong electrical current and intense heat generated from the repeated short-circuiting resulted in thermal breakdown of the overhead line, which ultimately broke.

**Technical Actions and Improvements**

18. The MTR Corporation has in place a robust maintenance regime to ensure the good condition of its railway assets which includes regular inspection, testing and maintenance of different systems and equipment.

19. Cables, insulation and other components of traction motors are inspected and tested on an average of every 23 days. The components on trainborne circuit breakers are inspected on average every 45 days which also includes a manual operation test. Pantographs are put through functional tests every day before a train enters service and are cleaned, inspected and tested about every 45 days .

Improvement Actions	Target Completion Date
(i) Enhanced Maintenance After the incident, an additional fleet check was conducted of the same type of traction motors, circuit breakers and pantographs. All were found to be in normal condition. Nevertheless, maintenance will be enhanced with the period	With immediate effect

<p>between inspections for the circuit breakers and pantographs shortened to an average of 23 days.</p>	
<p>(ii) Engaging Supplier in Investigation The traction motor/circuit breaker supplier has been instructed to investigate and determine the root cause of both the short-circuiting of the traction motor and the circuit breaker's failure to stop the flow of electrical current. The supplier has been requested to propose recommendations for improvement.</p>	<p>First quarter of 2011</p>
<p>(iii) Introducing Visual Indication in Driving Cab As no technical fault could be identified to determine why the pantographs of T48 were not lowered when required, the Corporation intends to introduce a visual indication in the driving cab to confirm the successful lowering of the pantographs.</p>	<p>To be rolled out from 2nd Quarter of 2011</p>
<p>Before the visual indication can be designed and installed, an interim measure will be implemented requiring Train Captains to activate the pantograph control button twice whenever they are requested to lower the pantographs on their trains.</p>	<p>With immediate effect</p>

### **Handling of the Incident**

20. The Corporation has in place contingency plans to cater for train service delays and serious disruptions. In the course of this incident, the following measures were implemented.

### **Dissemination of Information Outside the MTR Network**

21. Once it was informed of a breakage in the overhead line, OCC estimated that repair works would take at least four hours. The Transport Department and the Electrical and Mechanical Services Department were informed and updated on developments.

22. A Service Disruption notification (Red Alert) was sent to other public transport operators requesting them to offer assistance by strengthening their services in the affected area.

23. The media was informed and updated on developments so that they could disseminate news about the service suspension and interim service arrangements to members of the public who had not yet left home to assist them in making alternative transport arrangements.

### **Information and Assistance to Passengers in the MTR Network**

24. Centralised public announcements (PA) were made to inform passengers already within the MTR network of the service suspension, interim train service arrangements and provision of shuttle buses as well as to advise them to take alternative MTR routes and other modes of public transport.

25. Individual stations and trains also made PAs locally, slotted in-between the centralised PAs, to advise passengers of the alternative rail routes they can take to avoid the affected area. For example, PAs at Tsuen Wan Line stations urged passengers to use the Tung Chung Line to cross the harbour while PAs at Kwun Tong Line stations advised passengers heading across the harbour to use the Tseung Kwan O Line.

26. At Yau Ma Tei and Tsim Sha Tsui stations, announcements were made to advise passengers to take emergency buses. Station staff also directed passengers to the designated exits leading to the emergency bus pick-up points.

27. Notices were posted at all stations on all lines to inform passengers of the train service suspension and interim service arrangements. Messages were also displayed on the electronic Passenger Information Display boards at stations as well as the Electronic Information Display system on trains. At the same time, the MTR Hotline provided pre-recorded messages so that passengers calling into the Hotline could obtain information about the train service disruption immediately.

### **Emergency Bus Deployment**

28. An emergency bus deployment mechanism, formulated in conjunction with relevant Government departments, is currently in place

for the MTR system. The scale of emergency bus deployment varies according to the seriousness of the situation.

29. In this incident, emergency bus service was arranged to serve passengers travelling between Yau Ma Tei and Tsim Sha Tsui stations with intermediate stops at Jordan Station.

30. According to the established contingency plan, the emergency bus pick-up point at Yau Ma Tei Station is located at No. 559 Nathan Road. In consideration of the traffic condition on Nathan Road on 21 October soon after the emergency bus operation started, the Police requested the Corporation to move the bus pick-up point to Hamilton Street. The Corporation did so accordingly. As a result, queuing, boarding and alighting arrangements had to be adjusted.

31. OCC activated the Emergency Bus Deployment plan at 7:07 a.m. The first bus started to serve passengers at 7:53 a.m. from Tsim Sha Tsui Station and the last bus departed from Yau Ma Tei Station at 10:20 a.m. A total of 72 emergency buses were deployed, operating 156 trips to serve about 6,000 passengers.

### **Station Crowd Management**

32. During the incident, crowd management measures were implemented at a number of stations, taking into account the individual circumstances and situation at each station.

33. The Manpower Back-up mechanism was activated with an extra 115 staff members deployed to Yau Ma Tei, Tsim Sha Tsui and other key interchange stations to assist passengers.

34. At Yau Ma Tei and Tsim Sha Tsui stations, additional staff were arranged to set up the emergency bus pick-up points and manage the arrival and departure of buses.

35. Close monitoring of incoming passenger flow was maintained at individual stations. When required, stations slowed the flow of passengers into the paid area, and thereby onto trains, by turning off entry gates.

36. Exit gates at affected stations were set to allow passengers to exit with no Octopus fares being deducted and Single Journey Tickets were returned to users so they could obtain a refund. Public announcements

were also made at the concerned stations to advise passengers of the arrangement.

### **Identified Areas for Improvement in Handling of the Incident**

37. Through a robust maintenance regime, the MTR Corporation strives to provide a highly-reliable railway service for the people of Hong Kong. However, railway is a complex system and incidents that cause train service disruptions may occur. In the event of extended interruptions, the only realistic solution is to help passengers to use other MTR lines and alternative methods of public transportation. It is recognised that emergency buses cannot replace train carrying capacity and can only serve to support other land transportation. Therefore, communication with affected passengers, Government departments and other public transport providers are essential to minimise the inconvenience caused.

38. The Corporation takes seriously every train service disruption. Other than conducting a technical investigation to determine the cause and to prevent recurrence, the Corporation has also reviewed the contingency arrangements deployed on the 21 October incident to identify areas for improvement which are listed below.

#### Communication with the Transport Department

39. The Transport Department was not notified until 20 minutes after the first DCCB tripping, which did not meet the established practice of notification once an incident has caused an 8-minute delay to train service.

40. On review, it was found that initially, OCC staff believed they were dealing with a train fault, which, from past experience would cause delays of less than 8 minutes. As all resources in the OCC were focused on handling the incident, no call was made to the Transport Department even after the incident had passed 8 minutes. Another contributing factor was the smaller team of staff on duty in the OCC before 7:00 a.m. and after 11:30 p.m. The Transport Department was subsequently informed when it was revealed there was an overhead line breakage and a service suspension would be required.

Improvement Actions	Target Completion Date
(i) There will be full manning of the Communication Control Centre throughout the traffic day with immediate effect.	Completed
(ii) Specific staff will be assigned the duty to ensure timely communication with relevant Government departments during train service disruptions as required.	Completed

### Communication with Customers

41. Due to the fast-changing situation during the incident, some information disseminated to passengers in the MTR network was found to be unclear and incomplete. Some passengers also commented that they did not receive enough assistance to help them plan their onward journey.

Improvement Actions	Target Completion Date
(i) Station Specific Response Every station will conduct reviews on how it handles extended train service disruptions, including emergency bus arrangements, manpower, crowd control and provision of alternative transport solutions possible under different scenarios. The contingency plan for each station will then be revised accordingly.	End 2010
(ii) Digital Radio System Plans to leverage on new technology to install a new digital radio system will be expedited to enhance communication between the OCC and staff at stations to ensure staff are kept up-to-date on changes in train service arrangements.	Gradual roll-out from mid-2011
(iii) New Customer Communication System A Digital Stanchion System will be introduced throughout the railway network to provide quick information updates in a clear visual format. The System will first be rolled-out at interchange stations.	Gradual roll-out from mid-2011

<p>(iv) Giant Information Displays Giant information displays will be installed in stations to provide easy-to-see information on alternative transport modes available from each station during incidents.</p>	<p>4<sup>th</sup> Quarter of 2011</p>
<p>(v) System-wide Review of Public Announcements A system-wide review on the preparation and broadcast of public announcements to passengers will be made to ensure swift and accurate delivery of messages.</p>	<p>1st Quarter of 2011</p>
<p>(vi) Enhanced training for staff Enhanced training will be provided to staff in both the OCC and at stations on preparing more customer-oriented public announcements.</p>	<p>On-going</p>

#### Crowd Management In and Outside MTR Stations

42. Back-up staff deployed from other stations during incidents may not be familiar with the surrounding environment of the incident station, affecting their ability to offer timely assistance.

Improvement Actions	Target Completion Date
<p>(i) Customer Service Response Unit A dedicated Customer Service Response Unit will be set up for deployment to stations and emergency bus stops during incidents to offer support. Members will undergo special training on contingency arrangements and customer requirements during train service disruptions. They will also be coached in effective customer communication skills.</p>	<p>1<sup>st</sup> Quarter of 2011</p>
<p>(ii) Improved On-street Crowd Management The Corporation is mindful that it should be aware of the situation outside stations where large numbers of passengers are expected to exit during incidents. Staff will be assigned to monitor and report the street-level situation to OCC and/or Station Control Rooms to facilitate</p>	<p>End 2010</p>

<p>more effective coordination with relevant parties such as the Police for better crowd management.</p> <p>(iii) Customised Cue-cards As a useful tool for back-up staff deployed to incident stations, customised cue-cards containing necessary information required during train service disruptions such as the location of emergency bus stops and designated exits leading to the emergency bus stop will be produced.</p>	November 2010
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### Emergency Bus Arrangement

43. As the Nathan Road pick-up and drop-off points for the emergency bus route serving Yau Ma Tei Station adversely affected traffic conditions, the Police requested the bus pick-up point be moved to Hamilton Street to facilitate emergency bus operation and hence minimising obstruction to other road users.

44. Under the emergency bus deployment plan, two MTR staff members are normally deployed to set up the pick-up and drop-off points, arrange queuing, liaise with the emergency bus operators and direct the arrival and departure of buses. Upon activation of the manpower back-up mechanism, extra staff were deployed to assist in the boarding activities at the pick-up point at Yau Ma Tei Station. However, it is recognised that more resources can be deployed in this area.

Improvement Actions	Target Completion Date
<p>(i) Improved Emergency Bus Plan A review of the current emergency bus deployment plan including the location of pick-up and drop-off points will be conducted in conjunction with the relevant Government departments to discuss the problems encountered and identify solutions for improvement.</p>	Review kicked off
<p>(ii) Enhanced Drills with External Parties The deployment of emergency buses will be incorporated into regular drills and exercises with the Police and other emergency services to</p>	On-going

test its effectiveness and coordination between the MTR and relevant external parties.	
(iii) Deployment of More Resources More staff with enhanced training mainly from the Customer Service Response Unit will be assigned to man emergency bus pick-up points to assist in crowd management and offer help to passengers.	1 <sup>st</sup> Quarter of 2011
(iv) Improved Signage The signage system in stations and at street level directing passengers to emergency bus pick-up points will be enhanced to make them more visible and provide clearer information.	2nd Quarter of 2011

## Conclusion

45. The MTR Corporation fully understands the concerns expressed by members of the public over the train service disruption on the Tsuen Wan Line on 21 October 2010. The Corporation apologises for the inconvenience caused to passengers and would like to thank them for their patience and tolerance.

46. We appreciate the public's understanding that train service disruptions may occur from time to time. In addition to the measures set out in this paper, the Corporation is committed to seeking continuous improvements to reduce the inconvenience caused when disruptions occur and to continue providing a safe, reliable and efficient mass public transit service for the people of Hong Kong.

MTR Corporation  
November 2010