

BUSINESS CONTINUITY MANUAL (BCM)

Volume 1 Content

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CORPORATE BUSINESS CONTINUITY POLICY STATEMENT

企業運作持續政策聲明

As one of the world's busiest airports, Hong Kong International Airport (HKIA) has always strived to maintain high operational efficiency. Given the dynamic airport risk landscape which may bring a myriad of disruptions to HKIA's operations, strong operational resilience is deemed crucial to the continuity of HKIA's business at times of crises and disruptions.

Riding on the robust airport emergencies and crisis management framework established through the past decades of airport operations, the Airport Authority (the Authority) has developed the Business Continuity Management System (BCMS) as the cornerstone of high operational resilience at HKIA. The Authority will focus on the prevention, preparation, response and recovery process of disruption handling and manage potential airport risks by:

1. identifying operational risks and formulating mitigation measures with departments within the Authority;
2. establishing formal emergency response and business continuity plans and procedures;
3. conducting drills and exercises to validate the emergency response and business continuity plans;
4. tracking the operational risk portfolios to regularly review the identified risks; and
5. cultivating a robust culture of business continuity across the airport community through:
 - a. raising airport-wide awareness on disruption handling;
 - b. engaging airport stakeholders in the risk management process, including formulation and review of risks and business continuity plans;
 - c. assisting airport stakeholders to establish risk management frameworks that are aligned with the Authority's airport-wide business continuity initiatives; and
 - d. supporting and engaging the airport community in disruption preparedness activities.

Given the complexity in airport operations, close collaboration among the airport community is of paramount importance. It is the responsibility of the Authority's contractors, franchisees, licensees and business partners to identify their respective operational risks, draw up effective emergency response and business continuity plans, and to cooperate with the Authority to ensure the plans established tie in with the Authority's overall resilience strategies. Efforts shall also be made to actively participate in the relevant training, drills and exercises organised by the Authority to maintain readiness in disruption handling.

The Authority's Business Continuity Planning Section, in parallel, will make best endeavours to provide necessary assistance to the airport community and promulgate business continuity awareness through active communication, discussions, training, drills and exercises.

The Authority is committed to achieving strong airport-wide operational resilience and the effectiveness of the BCMS will be reviewed on a regular basis for continuous improvement.

香港國際機場躋身全球最繁忙機場之列，一直致力維持高效運作。由於機場風險狀況變化不定，可能會導致運作受阻，因此在面對不同的危機及突發狀況時，擁有穩健的運作復原能力是機場業務得以持續的關鍵。

建基於過去數十年機場營運經驗所建立的完善緊急應變及危機管理框架，機場管理局制訂了業務持續管理系統，成為機場擁有高度運作復原力的重要基石。機管局於危機及突發狀況處理過程中，會集中於預防、準備、應變及復原四個階段，並透過下列措施以管理潛在機場風險：

1. 與機管局有關部門識別運作風險及訂定緩解措施；
2. 訂立正式的緊急應變及運作持續計劃及程序；
3. 進行演習及演練，驗證緊急應變及運作持續計劃；
4. 追蹤營運風險情況並定期檢討已識別的風險；及
5. 通過以下措施在機場社區培養穩健的運作持續文化：
 - a. 加強整個機場對於處理運作受阻的意識；
 - b. 邀請機場持份者參與風險管理的過程，包括制訂及檢討整個機場的風險及運作持續計劃；
 - c. 協助機場持份者建立可配合機管局運作持續措施的風險管理框架；及
 - d. 支持與邀請機場同業參與風險防備工作。

機場運作極為複雜，故機場同業之間的緊密合作非常重要。機管局的承包商、專營商、特許經營商及業務夥伴有責任識別各自的營運風險，制訂有效的緊急應變及運作持續計劃，並與機管局合作，確保該等計劃配合機管局的整體復原策略，同時，亦應積極參與機管局舉辦的相關培訓、演習及演練，為應對各種運作受阻情況做足準備。

機管局的運作持續策劃組亦會盡力為機場同業提供協助，透過積極溝通、討論、培訓、演習及演練，推廣及加強運作持續意識。

機管局致力促使整個機場建立強而有效的運作復原能力，並定期檢討業務持續管理系統之成效，務求不斷進步。



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香港機場管理局行政總裁林天福

Airport Authority Hong Kong
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BUSINESS CONTINUITY MANAGEMENT SYSTEM (BCMS)

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Revision 02	01 Aug 2010		
Revision 03	15 Dec 2010		
Revision 04	15 Aug 2011		
Revision 05	01 Mar 2012		
Revision 06	30 Jun 2012		
Revision 07	15 Sep 2012		
Revision 08	10 Dec 2012		
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Assistant General Manager, Airfield	1
Assistant General Manager, Standards & Service Delivery	1
Assistant General Manager, Infrastructure Management and Coordination	1
APM & Baggage Department	
General Manager, APM and Baggage	1
Assistant General Manager, Baggage Operations	1
Assistant General Manager, APM Operations	1
Terminal Operations Department	
General Manager, Terminal Operations	1
Assistant General Manager, Estate Management	1
Assistant General Manager, Passenger Services	1
Assistant General Manager, Terminal Operation & Government Facilitation	1
Assistant General Manager, Customer Service	1
Landside Department	
General Manager, Landside Development	1
Assistant General Manager, Landside Services	1
Assistant General Manager, Land Transport & Landscape	1
Assistant General Manager, Intermodal Connectivity	1
Assistant General Manager, Landside Infrastructure Management	1
Hub Development Department	
General Manager, Hub Development	1
Innovation & Data Insights Department	
General Manager, Innovation & Data Insights	1
Safety, Security & Business Continuity Department	
General Manager, Safety, Security & Business Continuity	1
Assistant General Manager, Business Continuity Planning	1
Manager, Business Continuity Planning	1
Assistant Manager, Business Continuity Planning	5
Senior Officer, Business Continuity Planning	1
Assistant General Manager, Airport Safety	1
Assistant General Manager, Airport Security	2
Airport Operations & Facilities Planning Department	
General Manager, Airport Operations & Facilities Planning	1
Technical Services Infrastructure Department	
General Manager, Technical Services Infrastructure	1
Senior Manager, Civil & Infrastructure	1
Senior Manager, Electrical & Energy	1

Senior Manager, Mechanical & Utilities	1
Senior Manager, Buildings & Infrastructure	1
Senior Manager, Projects	1
Technical Services Systems Department	
General Manager, Technical Services Systems	1
Senior Manager, Baggage Handling System	1
Senior Manager, Automated People Mover System	1
Senior Manager, Technical Systems	1
Senior Manager, Airfield & Electronic Systems	1
Integrated Airport Center	
IAC Airport Duty Managers	1
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IAC-LD c/o Assistant Manager, Landside Services	1
IAC-ACC c/o Assistant Manager, ACC	1
IAC-BMO c/o Assistant Manager, Baggage Handling	1
IAC-FRT c/o Assistant Manager, Technical Services	1
IAC-SOCC c/o Assistant Manager, IT Operations	1
IAC-AVSECO c/o Assistant Manager, AVSECO	1
AEC c/o Senior Officer, BCP	1
Aviation Logistics Department	
General Manager, Aviation Logistics (Hong Kong)	1
Assistant General Manager, Aviation Logistics	2
Land, Property & Aviation Franchises Department	
General Manager, Land, Property & Aviation Franchises	1
Assistant General Manager, Property Portfolio & Aviation Franchises	1
Corporate Affairs Department	
Chief Corporate Affairs Officer, Corporate Affairs	1
General Manager, Corporate Branding and Marketing	1
Sustainability	
General Manager, Sustainability	1
Human Resources Department	
Head of HR Relationship Management	1
General Manager, Rewards and Organization Development	1
Administration Department	
Senior Manager, Administration	1
Information Technology Department	
Chief Information Officer	1
Deputy Chief Information Officer	1
Senior Manager, IT Operations	1
Internal Audit Department	
Senior Manager, Internal Audit	1
Legal Department	
General Counsel	1
Retail and Advertising Department	
Head of Retail & Advertising	1
General Manager, Retail Experience	1

AVSECO	
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Assistant Executive Director (Ops I)	1
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5.0 Manual Status

This is an Airport Authority Hong Kong (AAHK) document, intended solely for internal staff use.

5.1. Manual Authority

This is an AAHK document issued under the authority of the Executive Director, Airport Operations where the Owner of this document is the General Manager SSBC and is administered by the Assistant General Manager Business Continuity Planning.

5.2. Requests for Amendments

All requests for amendments to this document should be raised in writing to the Assistant General Manager Business Continuity Planning, together with the following information:

1. Department, Name, job title and contact phone number of the party raising the request;
2. Existing text or information to be amended;
3. Proposed new text or information to be added;
4. Effective date for the proposed amendment to take place, if applicable; and
5. Reasons for the proposed amendment or new data, with supporting documentation, where applicable.

5.3. Disclaimer

1. This document is the property of the AAHK and is intended for internal staff use only.
2. No part of this document may be reproduced or transmitted in any form or by any means whatsoever for any purpose without written permission of the General Manager SSBC.
3. The AAHK accepts no liability for any damage, indirect or direct (including loss of profit or consequential loss) that may be sustained by individuals, property or organizations as a result of activities carried out in association with the contents of this document.
4. The AAHK cannot be held responsible for any inaccurate or superseded information contained in this document.

5.4. Policy & Objectives

The Business Continuity Manual for the Airport Authority Hong Kong defines the Purpose and Scope, Policy, Objectives, Responsibilities and Business Continuity Processes relating to responses from AA departments, Business Partners, Contractors and Service Providers in relation to airport operational disruptions and crises.

5.4.1. Policy

1. Airport Authority policy requires all relevant divisions and departments to document, implement, drill and routinely test their Business Continuity Plans.
2. The Business Continuity Manual will be used to help assess and coordinate the necessary resources and activities required in order to have an effective and coordinated response to operational disruptions and crises.

5.4.2. Objectives

The primary objectives of the Business Continuity Manual are to:

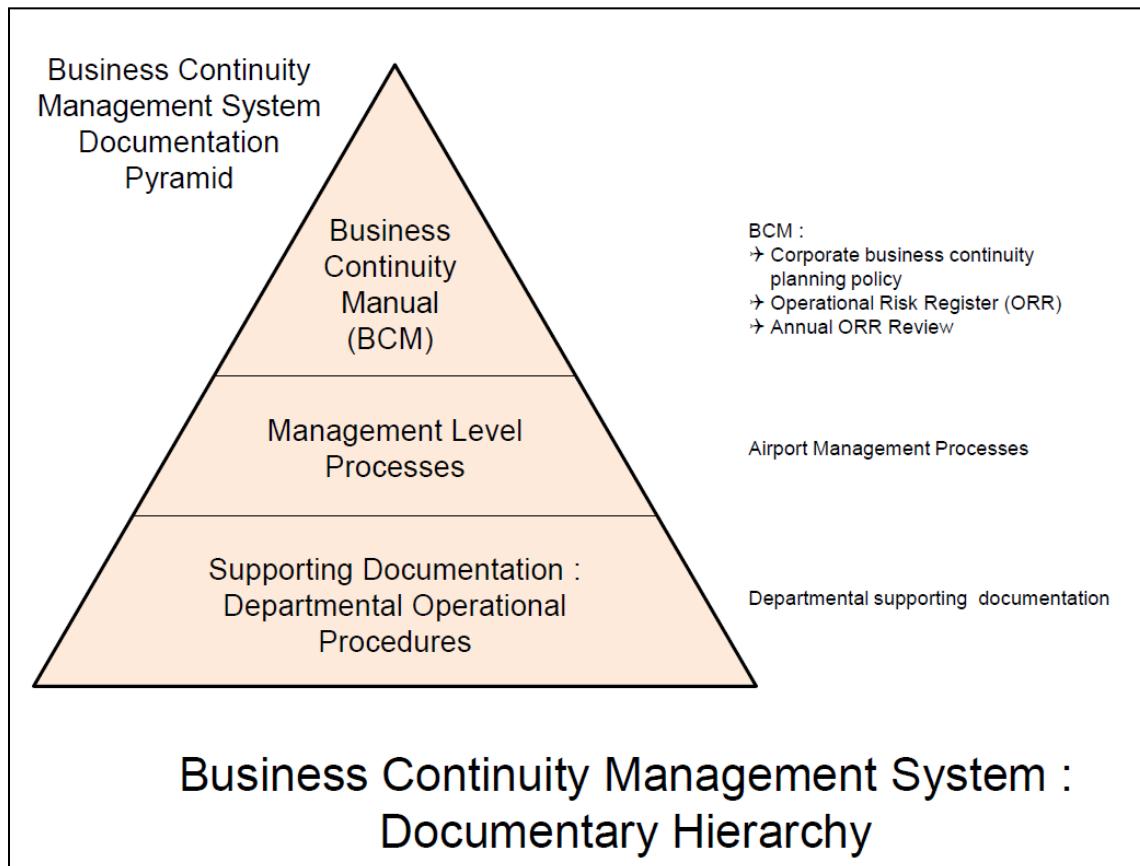
1. Document relevant Business Continuity processes and requirements;
2. Establish a consistent style for all applicable plans;
3. Facilitate the routine review and updating of plans;
4. Establish schedules for exercises and drills; and
5. Enable systematic management practices.

6.0 Hierarchy, Scope & Purpose

6.1. Hierarchy

1. Below diagram illustrates the hierarchy of documentation within the Business Continuity Management System (BCMS).
2. Note the relationship between the :
 - a. Business Continuity Manual (BCM)
 - b. Operational Risk Register (ORR)
 - c. Annual ORR Review
 - d. Various major airport management processes
 - e. Relevant departmental procedures

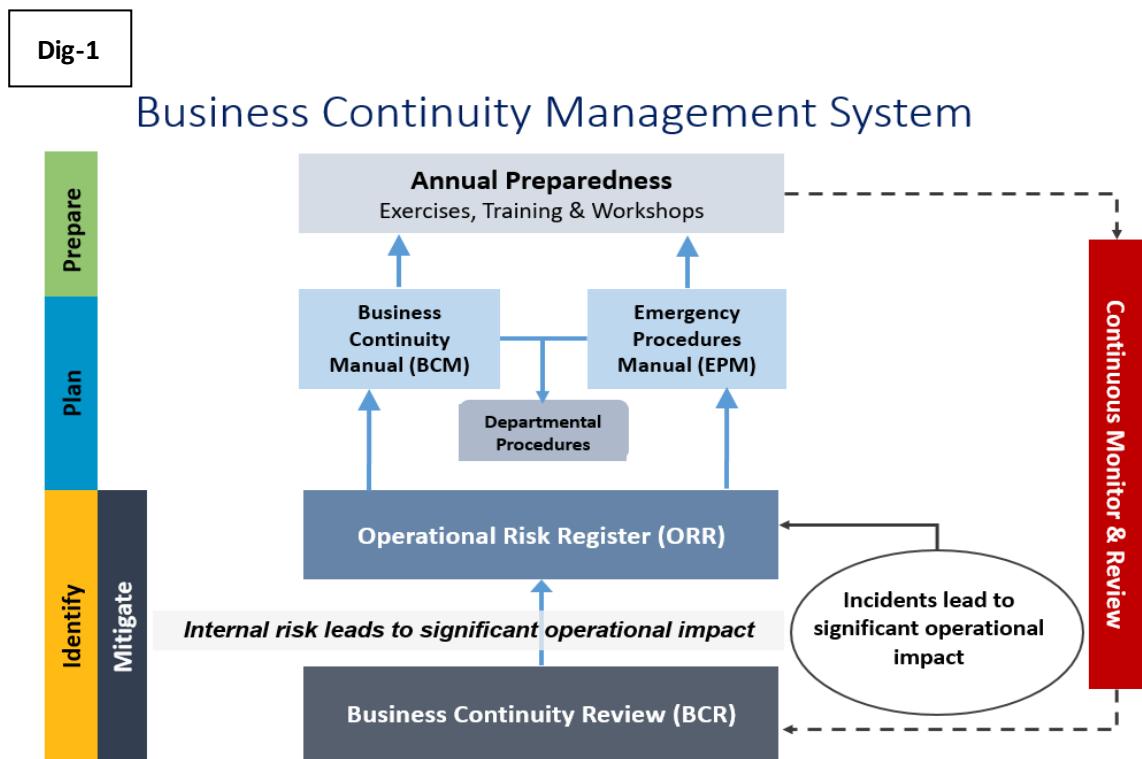
3. Hierarchy Pyramid :



6.2. Scope

Risk Management Philosophy

Given the myriad potential disruptions and crises that may affect the operations of Hong Kong International Airport, Management has put in place systems and processes that will identify, manage and minimize the negative effects these potential disruptions and crises may cause. An integrated, multi-layered risk and business continuity management process (Business Continuity Management System, BCMS) is used to identify and manage potentially disruptive situations (Dig-1).



Operational Risk Register is maintained to track and document identified risks. Also, validations drills and exercises are conducted on a regular basis to review, test and train staff to the plans. All HKIA stakeholders are active partners in this process.

In the event of a crisis, appropriate emergency response and business continuity plans are activated and managed from within the Integrated Airport Centre (IAC) and the Airport Emergency Centre (AEC). Because the nature of the risks involved changes over time, the Airport Authority understands that risk and business continuity management processes must remain dynamic.

Constant vigilance and appropriate resources are applied to ensure the five critical flows of passenger, baggage, aircraft, cargo and information are maintained at HKIA. A tried and tested risk management model is utilized to identify and manage risk exposures. Management identifies and retains its operational risk portfolio in the HKIA Operational Risk Register (ORR), which are managed by means of emergency response and business continuity plans.

Management aims to focus on the processes needed to maintain and recover our key airport business deliverables. Accordingly, the BCMS uses a response-driven, process-based approach. This ensures priority of efforts in managing critical and important tasks during a potentially chaotic crisis situation. The BCMS is also multi-layered in its design to reflect the multiple and simultaneous responses needed to manage any crisis.

All plans derived from the BCMS are tested at the minimum on a biennial basis with most plans, including those relating to aircraft accidents, on an annual basis. This regular testing schedule enables written plans to be reviewed while staff are provided with the opportunities to be trained regularly to the plans.

The diagram (Dig-2) below illustrates the overall risk management framework that enables a consistent and comprehensive approach to managing the Authority's risk exposures.

Dig-2



Emergency Procedures Manual (EPM)

The EPM is a CAD-regulated manual containing operational response procedures to emergency scenarios mandated by the International Civil Aviation Organization (ICAO) and the Security Bureau of the HKSAR Government. The EPM covers the operational procedures for handling emergency situations.

All responders to HKIA emergencies are recipients of this manual. Recipients include airlines and ground handling agents, ramp operators, cargo operators, air caterers, line and base engineering operators, MTR, medical agencies and government departments (Control Authorities and others).

There are three volumes to the EPM.

- Volume 1 deals with aircraft related incidents and accidents.
- Volume 2 deals with security related incidents whereas
- Volume 3 deals with other types of potential crises like public health, transportation, building fires, dangerous goods, typhoons and other weather related situations.

The EPM is updated on a biannual basis.

Business Continuity Manual (BCM)

The BCM complements the EPM by covering the preventive actions as well as the business recovery actions needed to bring the airport back to normal operations after an emergency. The BCM also covers other business continuity disruptions and crises that may affect the operation of the airport and that are not covered by the EPM.

The BCM is a dynamic document. It will evolve as new risk exposures are identified and placed into the Operational Risk Register.

Lessons learned from real crises, as well as lessons learned from regular drills and exercises, are fed back into the response plans and suitable amendments made to the BCM. The BCM is updated on a biannual basis.

Operational Risk Register

Identified significant risks are tracked and documented in an Operational Risk Register is reviewed on an annual basis. Risks are assessed by way of a simple yet proven Likelihood versus Consequences Matrix (Dig-3).

High Likelihood corresponding with high Consequences are categorized as Severity "A". Lower Likelihood corresponding with lower Consequences are graduated down to Severity "C". Category "A" risks must be addressed via the risk mitigation initiatives of risk transfer, risk avoidance and risk reduction to reduce the risks down to at least Severity "B2", the tolerable risk level which is as low as reasonably practicable (ALARP).

High category risks are prioritized and addressed first. Once these critical areas are managed, other risks are worked on. It is the aim of the AA to reduce all risks down to Severity "B2" or lower.

Dig-3

Risk Assessment Matrix		Consequences (1 = Lowest; 5 = Highest)				
		1	2	3	4	5
Likelihood 1 = Lowest; 5 = Highest	1	C	C	C	C	B2
	2	C	C	C	B2	B1
	3	C	C	B2	B1	A
	4	C	B2	B1	A	A
	5	B2	B1	A	A	A

Integrated Airport Centre (IAC) and Airport Emergency Centre (AEC)

In the event of a disruption or crisis occurring in HKIA, the appropriate response and continuity plans will be actioned. Activating and managing these plans, the management of the crisis, will take place from within the Integrated Airport Centre (IAC) and the co-located Airport Emergency Centre (AEC).

The IAC, commissioned in July of 2007, is the nerve center of the airport. It is manned around the clock. It is staffed by the Airport Duty Manager (ADM) and duty staff to manage the real time resource allocations and operational activities pertaining to Airfield operations, technical systems reliability, IT, Terminal operations, Baggage management, APM operations, Flight Information Display System operability and Security Control.

There are two major aims to the IAC. The first is to maintain the critical flows of passengers, baggage, aircraft, cargo and information. The second major aim of the IAC is the early detection and management of incidents.

For large scale disruptions or crises the ADM will activate the AEC as part of the immediate response to contain and manage the crisis. Other responders will report to the AEC and activate their various emergency response and business continuity plans. Overall coordination of this crisis management effort is led by the ADM, until the arrival of the Executive Director, Airport Operations or his alternate to ensure that an integrated, fast and comprehensive airport-wide response is directed at the crisis. This will enable an effective and efficient management of the crisis and promote the speedy recovery of airport operations back to normality.

Annual Preparedness Schedule

The Annual Preparedness Schedule lays out the series of training seminars, drills and exercises that are to be carried out during each fiscal year. The Schedule is interlinked to the Operational Risk Register in that higher risk exposures will have greater emphasis in the number of drills and exercises to be carried out. The Preparedness Schedule is the last link in the risk and business continuity management cycle.

Potential disruptions are identified and assessed. Mitigation initiatives such as risk transference, avoidance and reduction are applied. Residual risks are managed through integrated and multi-layered emergency response and business continuity plans. Plans are tested and revised as appropriate to a laid out schedule of annual training seminars, drills and exercises.

6.3. Purpose

The primary purpose of the Business Continuity Manual is to provide a framework to accommodate and maintain critical Business Continuity Plans for the Airport Authority Hong Kong, cross-referencing relevant supporting documents, where necessary.

6.4. Business Continuity Methodology

1. The Business Continuity Manual (BCM) and the Operational Risk Register (ORR) are to be reviewed and amended on a regular and periodic basis.
2. The ORR is reviewed via a systematic and standardized process called the Annual Operational Risk Evaluation and Control Review (ORR Review).
3. This review is directly linked to the biannual review process of the BCM.
4. The aims of the ORR Review are to ensure :
 - a. A systematic and standardized process is in place to control and manage the Authority's Operational Risk Register.
 - b. Identified risks are still applicable to the business continuity of the airport.
 - c. Active Risk Management Initiatives are still valid.
 - d. A regular review of the risk assessments is carried out.
 - e. Contingency plans are updated and properly exercised according to schedule.
 - f. Staff are trained to the plans.
 - g. New and emerging risks are identified and managed.
 - h. The BCM is amended and updated in accordance to a regular schedule.
5. A structured approach is to be used to review each identified risk within the Department's list of ORR :
 - a. One staff from each department, at an AGM level, is to be assigned as the Departmental ORR Coordinator.
 - b. This Departmental ORR Coordinator is accountable to the General Manager for the initiation, coordination, documentation and follow-up activities of the departmental ORR review process.
 - c. Results of the review process are to be documented and saved in a dedicated folder within a departmental shared drive.
 - d. Follow-up actions identified in the review are to be carried out by the respective departmental ORR risk owner.
 - e. Individual departmental ORR risk owners should be no less than an AGM/Senior Manager in seniority; e.g. the section head should be the designated ORR risk owner and the section's assistant managers/managers should not be the risk owner.
 - f. Once follow-up actions are carried out, results are to be recorded in the departmental shared drive.
6. The Departmental ORR Review Process :

- a. A member of the SSBC-BCP section is assigned as the liaison officer to each operations department to assist the line department to carry out its ORR Review.
- b. The Departmental ORR Coordinator initiates review by setting up individual meetings with each ORR risk owner or his/her designate within the department.
- c. The review is to be carried out against a set of standardized questions contained in the ORR Review.
- d. Results of completed ORR Review are signed-off by both the risk owner and the Departmental ORR Coordinator.
- e. Once all departmental ORR risks have been reviewed, the Departmental ORR Coordinator will collate the results and submit to the department head for endorsement.
- f. Once endorsed, results are presented to the Executive Director, Airport Operations.
- g. Final results are documented and recorded in the departmental shared drive.
- h. Copies are also forwarded to SSBC for consolidation.

6.5 Coordinated Media Communication Planning

1. Business continuity plans must also include a media communication plan.
2. The primary aim of the media communication plan should be to proactively collect and disseminate relevant and timely key messages to stakeholders as well as the general public via the mass media as part and parcel of the overall management response to the incident.
3. An essential criteria of a sound media communication plan is to ensure all relevant stakeholders are integrated into the overall media communication planning; in other words, a joint approach to media planning.
4. The following points should be considered when implementing a coordinated media communication plan :
 - a. Identify major stakeholders and establish a joint media group/team.
 - b. Agree with major stakeholders on key deliverables to the media plan.
 - c. Major stakeholders should include the company involved in the dispute, its parent company if applicable, Police and other government departments as necessary.
 - d. Confirm that the AEC will be the primary conduit for information exchanges and updates.
 - e. Designate liaison persons and spokespersons from each party.
 - f. Discuss and agree upon possible response scenarios with corresponding key messages as well as stocking up on press kits and lists of potential Q&A's.

- g. Discuss and agree upon media targets and related timelines.
- 5. Discuss and agree on work processes as well as liaison persons in order to establish and fine tune implementation details :
 - a. Key messages e.g.
 - i. From each individual stakeholder
 - ii. From the joint media management working group/team.
 - b. In-Terminal announcements e.g.
 - i. Pre-recorded announcements to be made during incident in English, Cantonese and Mandarin;
 - ii. Electronic emergency notices will be broadcasted at baggage reclaim hall to inform arrival passengers of industrial action and other important information.
 - c. In-flight announcements e.g.
 - i. In-flight announcements prior to landing of inbound aircraft to inform passengers of special arrangements / notifications in regards to the incident
 - d. Website management e.g.
 - i. Who will alert others of developing situation,
 - ii. What messages should be uploaded,
 - iii. When it should be uploaded,
 - iv. What messages should be deleted and when to delete, etc.
- 7. Media enquiries e.g. Emergency notices / information / press releases / enquiry numbers to be communicated to media, etc.

7.0 BCMS Planning Guide

7.1. Introduction to the BCMS Planning Guide

1. This document is an Airport Authority document intended solely for internal use.
2. This is a planning document and its intentions are to guide divisions and departments through the Airport Authority Business Continuity Management System (BCMS) in order for them to develop and drill their department's business continuity plans.
3. The ultimate aim of this planning document is to enable all divisions and departments to establish and maintain validated, business-derived, response-driven, process-based, multi-layered business continuity plans to manage any foreseeable and probable airport service disruptions and crises.

7.2. Objectives of the BCMS Planning Guide

The objectives of this BCMS Planning Guide are :

1. State and explain each part of the process within the Airport Authority's Business Continuity Management System.
2. Assist departments and sections to place their various existing plans within the BCMS.
3. Assist departments and sections to develop and write standardized and effective business continuity plans in areas which may need updating.
4. Assist departments and sections to establish a regular schedule of exercises and drills in order to systematically practise their business continuity responses as well as train their staff to the plans.

7.3. Scope of the BCMS Planning Guide

1. This is a planning document intended to lead departments and sections through the successive steps needed to review, amend and test their existing business continuity plans and where necessary, develop, write and validate new plans.
2. There is no intention for departments and sections to rewrite their existing plans; instead, what is being asked is for departments and sections to review their existing plans and in accordance with the process laid out in the planning guide, place their plans into relevant sections within the BCMS.

3. The eventual deliverable of this planning guide is the departmental BCMS Consolidated Tables.
4. There is no need to rewrite existing plans and manuals together into the BCMS consolidated tables; the existing plans and manuals can remain in their present locations and need only be referenced to within the completed BCMS tables.
5. This is a planning guide and not a crisis management manual or an operational manual; operational procedures should be referenced back to departments' and sections' relevant operational manuals.

7.4. How to use the BCMS Planning Guide

1. This is a business continuity planning guide and not an operational manual.
2. The planning guide will take you step by step through the planning processes needed to :
 - a. Review your existing business continuity plans; there is no need to rewrite any of your existing plans unless you feel they are inadequate and / or out of date;
 - b. Place these existing plans within the context of the Airport Authority Business Continuity Management System;
 - c. Assist you to identify areas where you presently may not have appropriate plans written out;
 - d. Assist you to develop and write these plans to conform to the accepted BCMS format and
 - e. Develop an annual exercise and drill schedule to validate as well as train your staff to your plans.
3. The chapter, “BCMS Planning Process”, explains the BCMS in detail and helps you to understand how your various existing plans fit into the BCMS.
4. The chapter, “Putting Together the BCMS Plan”, shows you where to place your existing plans into the BCMS.
5. “Business Deliverables Resources Chart”, the last section within the chapter “Putting Together the BCMS Plan”, will help you develop and write plans in areas where you have identified deficiencies within your existing plans.
6. After you have successfully gone through this planning guide, you will have validated, business-driven, processes-based, multi-layered business continuity plans that will help you manage any foreseeable and probable service disruptions and / or crises your department may face.

7.5. BCMS Planning Process

7.5.1. About this Process

1. The Hong Kong International Airport (HKIA) is an integral part of the Hong Kong Special Administrative Region (HKSAR).
2. As one of the SAR's major transportation links to the rest of the world, HKIA must be able to maintain its operations at all times.
3. The Airport Authority Hong Kong has adopted a business-derived, response-driven, process-based, multi-layered business continuity model to ensure the continued operational viability of the HKIA.
4. The Authority's Business Continuity Management System (BCMS) is based upon this model.
5. This section will explain the system by first defining some common terms used in managing a business disruption or crisis.
6. Next, it will explain the contingency planning and crisis management processes needed by divisions and departments to plan for and manage potential service disruptions and business continuity crises.
7. Finally, it will explain how divisions and sections can place their various existing plans into the BCMS framework as well as develop and write new plans in areas where there may be identified deficiencies within existing plans.

7.5.2. The Response : Defining Common Terms

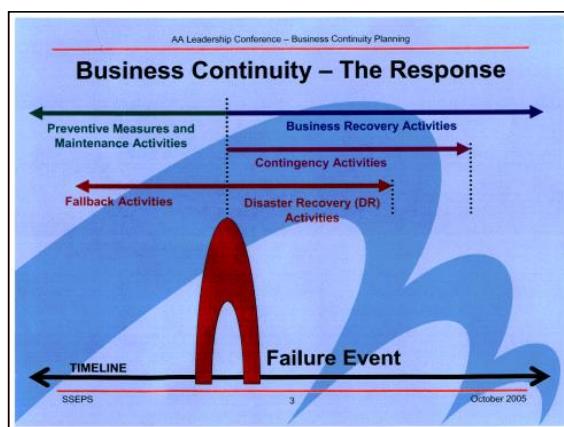
1. There are many ways to define a crisis, though for our purposes, the following definition is comprehensive enough for us to describe the many different crises we may face (e.g. aircraft accidents, IT and Engineering system failures, industrial actions by airline staff, security incidents, etc.).

"A crisis is any critical event requiring an immediate, proactive response in order to manage and minimize its negative impacts to the Airport Authority's operations, reputation and profitability."

2. The immediate and proactive responses activated upon the occurrence of a critical event will include the Authority's crisis management response as well as the business continuity plans of the various divisions and departments.

3. The crisis management response may include the activation of the Airport Emergency Centre (AEC).
4. The various business continuity plans/activities of the divisions and departments can be classified into one of the following five response activities :
 - a. Preventive measures and maintenance activities.
 - b. Fallback activities.
 - c. Disaster recovery activities.
 - d. Contingency activities.
 - e. Business recovery activities.
5. Preventive Measures & Maintenance Activities – defined as :
 - a. IT usage – Activities to fully test and validate any system upgrade or upload for system compatibility before putting into the production system.
 - b. Also known as “Pre-production Testing or Protocol” by IT professionals.
 - c. Engineering system’s usage – Activities to maintain system output during scheduled maintenance, etc.
 - d. These activities also include documenting the following :
 - i. Measurable criteria to monitor successful system performance after upload.
 - ii. Pre-set criteria on monitoring timeframes.
 - iii. A decision-making mechanism on whether to continue with the upload or to back-out at each critical point during the upload process.
 - iv. Back-out procedures to re-establish system stability at each critical point of the upload.
6. Fallback Activities – defined as :
 - a. Activities aimed to continue critical functions during temporary system unavailability.
 - b. Also known as “workaround” activities.
 - c. Commonly used during anticipated periods of system unavailability; e.g. during scheduled maintenance, hardware upgrades, recurrent system “hiccupps”, etc.
7. Disaster Recovery Activities – defined as :
 - a. Primarily an IT term that describes all related activities designed to restore an IT system that has failed.
 - b. Focused on the failed system’s restoration and data recovery as opposed to maintaining the business critical function.

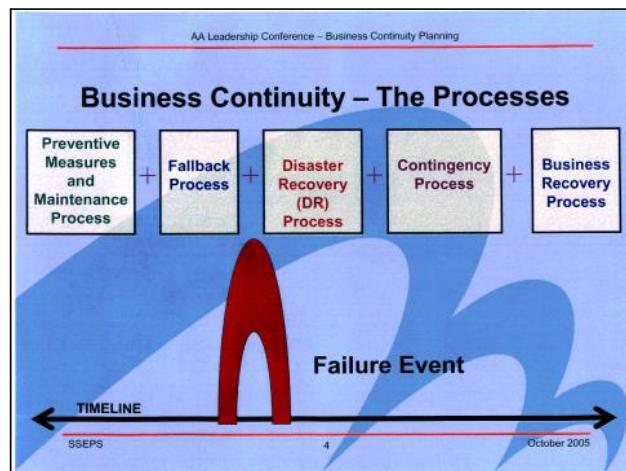
8. Contingency Activities – defined as :
 - a. Activities designed to maintain business critical functions in the event of IT or Engineering systems failure.
 - b. Service disruptions may include the inability of external parties to provide essential services or information critical to a work process.
 - c. Service disruptions may also include the unavailability of the primary work place essential to a business critical function.
 - d. These contingency activities may involve degradation of agreed “normal” service delivery standards.
 - e. Contingency activities may also involve succession planning and/or work outsourcing where pivotal staffs are no longer able to support key business deliverables.
9. Business Recovery Activities – defined as :
 - a. Activities that transfer or recover the business (flow of data, people, cargo, baggage, aircrafts, etc.) from the contingency activities mode back to the “normal” mode.
 - b. May involve transfer of the business flow back to the primary work place or to an alternate work place if the primary is unavailable for an extended time period.
10. The following diagram shows these 5 types of activities in relation to a failure event, which is represented by the arch located on the timeline.



7.6. Maintaining Business Continuity – The Processes Involved

1. From the previous section, it can be seen that the various activities can be collated and organized into sets of related processes.
2. There would then be 5 different sets of related processes :
 - a. Preventive measures and maintenance process.
 - b. Fallback process.

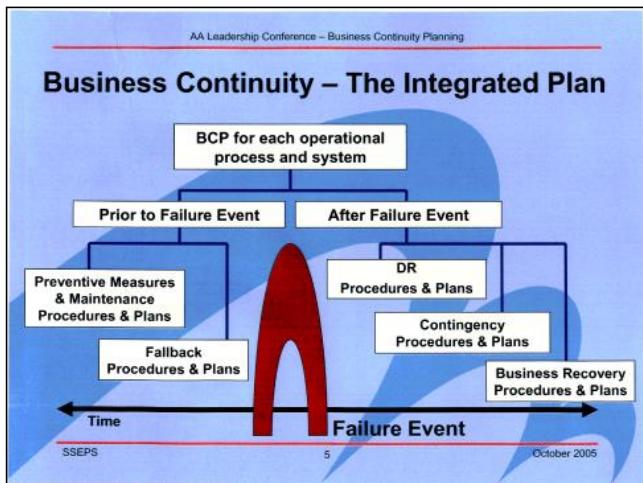
- c. Disaster recovery process.
 - d. Contingency process.
 - e. Business recovery process.
3. The following diagram shows these 5 processes in relation to each other as well as to a failure event.



4. Note that the “preventive measures & maintenance process” and the “fallback process” are to the left of the failure event.
5. The remaining three processes are to the right of the failure event

7.7. Business Continuity : The Integrated Plan

1. The next step is to ensure all the various activities are properly written down with detailed procedures describing each step within the process.
2. These procedures then become your documented plan.
3. Validation of these plans by regular drills and exercise will ensure the plans are up to date, as well as your people are trained to the plans.
4. Through proper documentation and comprehensive validation drills and training exercises, you will end up with a comprehensive, business-derived, response-driven, process-based, multi-layered business continuity management plan for each of your business critical functions.
5. The diagram below shows the relationship between the 5 sets of procedures within the Business Continuity Management System for each of your operational process / system supporting your business critical functions.



7.8. Putting Together the BCMS

This section will help you take your existing plans and assign them into the appropriate places within the BCMS.

7.8.1. Defining the Key Business Deliverables

1. There is no intention to rewrite any of your existing plans.
2. Instead, complete the following table, "Key Business Deliverables Summary Table" (Item 8. Below), categorizing all your various existing plans into relevant sections of the BCMS.
3. Begin by stating all the Business Deliverables responsible by your sections.
 - a. These Business Deliverables are services or operations or activities that define and maintain the flow of passenger, baggage, aircraft, cargo and information through the airport under your section's responsibility.
 - b. Examples include :
 - i. Stand allocation
 - ii. Runway serviceability
 - iii. PTB environmental controls (e.g. lighting, power, air-conditioning, water, etc.)
 - iv. Check-in process
 - v. Baggage management – inbound, outbound, transfer
 - vi. PTB outbound passenger flows, transfer passenger flows, inbound passenger flows, etc.

- c. Do not list IT or engineering systems as Business Deliverables; e.g. FIDS and the APM are systems and not Business Deliverables.
4. Under each Business Deliverable, list all the relevant IT systems, Engineering systems and Work Processes supporting the Business Deliverable.
5. For each IT, Engineering and Work Process, place a “Yes” or a “No” to indicate whether you do or do not have existing procedures.
6. Place a “N/A” for “not applicable” if that item is not relevant.
7. Placing a “No” at places where you do not have existing procedures will serve as an indicator for you to develop and write new procedures to correct this deficiency.
8. An example of a Key Business Deliverables Summary Table – SSBC

2 Key Business Deliverables Summary tables

b. Security

Business Deliverables	Involved Processes	Primarily related to IT & Engineering System			Primarily related to Work Process		Risk Assessment		
		Preventive Measures & Maintenance Procedures (Yes / No)	Fallback Procedures (Yes / No)	Disaster Recovery Procedures (Yes / No)	Business Continuity Procedures (Yes / No)	Business Recovery Procedures (Yes / No)	Risk Category (A, B1, B2, C)	Risk after Mitigation (A, B1, B2, C)	Remarks
Business Deliverable (BD 3) : Security screening of persons and articles being transported on aircraft	IT System	Nil	--	--	--	--			
Engineering System									
	Baggage X-ray Screening machines	Yes Quality Assurance Programme	Yes (Hand Search. Not documented)		Yes AVSECO Security Procedures Manual		B2 (L=2, C=4)	C (L=1, C=2)	
	Explosives Trace Detection System	Yes Quality Assurance Programme	Yes (Hand Search. Not documented)		Yes AVSECO Security Procedures Manual		B2 (L=2, C=4)	C (L=1, C=2)	
Work Process									
	Hand Search				n/a	n/a	C (L=1, C=2)	C (L=1, C=2)	
	HKIA Airport Security Programme				n/a	n/a	C (L=2, C=2)	C (L=1, C=2)	
	AVSECO Security Procedures Manual				n/a	n/a	C (L=2, C=2)	C (L=1, C=2)	
	AVSECO Action Cards				n/a	n/a	C (L=2, C=2)	C (L=1, C=2)	

7.8.2. Business Deliverables Annual Exercise & Drill Schedule

1. This Schedule enables you to put in place a comprehensive plan to exercise and drill all your business deliverables.
2. AMD requirement is for each system to be fully tested at least once every two years.
3. Compilation of this table should include :
 - a. Inputs from all relevant business partners, either internal like other Divisions / Departments / Sections, external partners like service providers / contractors, other stakeholders like airlines and handling agents, if applicable.
 - b. An appropriate exercise operational budget for costs incurred while conducting the drills and exercises.
4. Business Deliverables Annual Exercise and Drill Schedule Summary Table – SSBC Department, Security Section (example below).

b. Security

Business Deliverables	Involved Processes	- Write down the schedule of exercises / drills: "N/A" if exercises / drills not necessary. - If more than one process involved in same exercise, use" (") " to show master process and <i>italic</i> font mention on the slave one.											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Business Deliverable (BD 2): Protection of Airport Restricted Area from unauthorized access	IT System External Examination System (EES)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Engineering System ACS: - <i>Weekly Test on Boarding Gates</i> - <i>Monthly Test on Security Push Bar doors</i> <i>Monthly Test on Kick-bar Alarm</i>	√	√	√	√	√	√	√	√	√	√	√	√
	PIDS:	Nil drill/exercise; daily tested											
	Infra-red Alarm System: <i>Monthly Test by TSD</i>	-	-	17, 20	-	-	-	-	-	25	-	-	-
	CCTV	Nil drill/exercise; daily tested											
	MDAS: <i>Monthly (M) Test by TSD</i>	17	6	19	25	28	19	23	20	19	15	20	19
	Perimeter Fence / Barriers	Nil drill/exercise; Annually inspected; Daily checked by AVSECO											
	Perimeter Lighting	Nil drill/exercise; Quarterly inspected; Daily checked by AVSECO											
	Work Process AVSECO Security Procedures Manual <i>PTB Containment Plan - Containment Drill (annual)</i>	-	-	-	-	28	-	-	-	-	-	-	-

7.8.3. Business Deliverable Recovery Priority Table

1. The purpose of this table is provide a pre-thought out framework on which to base your recovery strategy if two or more business deliverables are down at the same time.
2. This table asks you to prioritize your department's business deliverables in order of recovery.
3. You will need to consult with other relevant departments on your priority listing to ensure common understanding of recovery objectives throughout all divisions and departments within the Authority.
4. Against each business deliverables, state the agreed upon service delivery standards in measurable criteria.
5. An example of a Business Deliverables Recovery Priority Table – SSBC, Security

4. Business Deliverables Recovery Priority Table (Biennial review in 2018)

Recovery Priority (Assign a number from 1 to n where n is equal to the number of BD's within the Unit)	Business Deliverables	Agreed Service Delivery Standard (quantify with measurable criteria)	Section Responsible	Other involved Sections and / or Units
1	BD 2 : Protection of Airport Restricted Area from unauthorized access	See HKIA Quality Assurance Programme – Security Equipment and Systems	Security	AVSECO & TSD
2	BD 3 : Security screening of persons and articles being transported on aircraft	See HKIA Quality Assurance Programme – Security Equipment and Systems	Security	AVSECO & TSD
3	BD 1 : Fire Safety Management	N/A	Safety	MCDD, T1D & TSD
4	BD 4 : Deliver a validated operational crisis management capability through a Business Continuity Management System based upon industry best practices	N/A	BCP	N/A
5	BD 5 : Maintain readiness of the AEC and Back-up AEC to manage the AA's operational response	See AEC Ops Manual	BCP	Line departments as required by Crisis Management Team

7.8.4. Business Deliverable Planning Template

1. This planning template is to assist you in writing new procedures wherever your existing processes are missing such procedures.
2. This is a planning process in itself; it will take you step by step to write out new contingency plans.
3. First thing you need to do is to state the Business Deliverable.
4. Next is to write out the agreed service delivery standards in measurable, quantifiable terms.
5. Next is to list out all the resources needed (Staff, Premises, IT & Engineering Systems) to maintain and/or recover this Business Deliverable to the stated service delivery standards.
6. Once you have decided on the resources you will need, next step is to write out and document the operational procedures.
7. Ensure that other stakeholders in your Business Deliverable are consulted for their inputs.
8. Some service disruptions or crises will involve a possible lowering of service standards; as such, you may wish to add to the table one or two levels of acceptable/agreed upon service degradation(s) with their corresponding resources and operational procedures.

Business Deliverables Planning Template :

Business Deliverables Planning Template													
Department / Section :		Business Deliverables (BD)	Staff	Premises			IT / Telecommunications / Engineering Systems & Equipment					Operating Procedures (Referenced in Which Document?)	Others Involved (Internal / parties)
Area (m ²)	Work Stations			IT Systems / Applications	Engineering Systems	PC Internet Enabled	Print	Fax	Phone / TMR	Others			
BD 1 – Quantify with measurable criteria													
Agreed Service Delivery Standards													
Degraded Level 1 Service Delivery Standard (if applicable)													
Degraded Level 2 Service Delivery Standard (if applicable)													
BD 2 – Quantify with measurable criteria													
Agreed Service Delivery Standards													
Degraded Level 1 Service Delivery Standard (if applicable)													
Degraded Level 2 Service Delivery Standard													

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OPERATIONAL RISK REGISTER (ORR)

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8.0 AAHK Operational Risk Register (ORR) Overview & Ownership

1. The ORR Review is integrated into the BCM review in order to ensure alignment between the two processes.
 - a. A series of roadshow is organized by SSBC-BCP as refresher training for involved personnel.
 - b. After the roadshow, involved personnel are to review their relevant BCM sections as well as their respective departmental contingency plans in preparation to conduct the ORR Review.
 - c. Results from the ORR Review, as well as relevant lessons learned, are to be incorporated back into relevant BCM sections as well as respective departmental contingency plans.
2. ORR Review Timeline
 - a. There will be a full and a streamlined ORR review run in alternative years starting from 2017, the streamlined ORR review would be adopted with simplified Business Continuity Review (BCR) process. Unlike in full ORR review which requires the completion of three sections in BCR, only the “Business Deliverables Annual Exercise and Drill Schedule Summary Table” is required in the streamlined review. The streamlined ORR review exercise would be commenced in August whereas the full review would be in June as illustrated in below tables.
 - b. Full ORR Review timeline

	Activities	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb
1	Roadshow to 7 Departments	■	■							
2	Business Continuity Review		■	■	■					
3	1. ORR Review Process by 7 Depts				■	■	■	■		
3	2. ORR Inputs Review by BCP						■	■		
3	3. ORR Review Sign Off by GMs								■	
4	Final Business Continuity Review with Exercise Dates						■	■		
5	1. ORR Review Summary							■	■	
5	2. ORR Summary Submission to EDAO									■

c. Streamlined ORR Review

	Activities	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb
1	Roadshow to 7 Departments									
2	1.ORR Review Process									
	2.Review of input by BCP									
	3.ORR Review Sign off by GMs									
3	Business Continuity Review (Drill / Exercise Schedule)									
4	ORR Review Summary									
5	ORR Review Summary Submission to EDAO									

3. ORR Review Timeline at Departmental Level :

Departmental Operational Risk Register Review Timeline										
	Activity	Weeks 1 to 4			Weeks 5 to 8			Weeks 9 to 12		
1	Department ORR Coordinator initiates review									
2	Meets with individual ORR risk owner to complete the ORR Review									
3	Departmental Coordinator will collate the results and submit to the department head for endorsement									
4	Signing of finalized review by : a. Each process owner b. Departmental representative c. Department head d. SSBC representative									
5	Final results are documented and recorded in the departmental shared drive									
6	Results are consolidated by SSBC and updated to ED-AO									

4. The questions within the ORR Review are set by SSBC and are periodically updated to reflect applicable industry standards and best practices within the risk and business continuity management industry.

5. ORR Review Questionnaire (Example)

ORR Review Questionnaire

1.0 Identified risks of your Department and their respective risk levels area listed in the table below

Name of Department:	
Risk Review Period [Current calendar year]	

s/n	ORR Risk No. (Risk XX)	Departmental Risks	Risk Level (A / B1 / B2 / C)				Owner (AGM / Sr Manager)	
			Previous Record		Reviewed in 2016			
			Before Mitigation	After Mitigation	Before Mitigation	After Mitigation		
1								
2								
3								
4								
5								
6								

2.0 Endorsement by Departmental Representative and General Manager

Departmental Representative <hr/> (Name)	Date:
Departmental General Manager <hr/> (Name)	Date:

3.0 When completed, use this page as cover sheet for all surveys underneath.

6. Operational Risk Register (ORR) Ownership

Risk no.	Identified Risks	Departmental Owner	Risk Owner
1.	Aircraft Accident	AD	AGM - S&SD
2.	Infectious disease outbreak within HKG	SSBC	AGM - BCP
3.	Suspected infectious disease passenger(s) onboard inbound aircraft	SSBC	AGM - BCP
4.	Suspected infectious disease passenger(s) onboard inbound cross border ferry / Bonded Bus	SSBC	AGM - BCP
5.	Unlawful interference to aircraft & airport facilities	SSBC	AGM - Security
6.	Unlawful seizure of aircraft	SSBC	AGM - Security
7.	BW against aircraft	SSBC	AGM - Security
8.	BW in buildings	SSBC	AGM - Security
9.	Major security incident	SSBC	AGM - Security
10.	CBRN	SSBC	AGM - Security
11.	Failure to Deliver BSM to BHS	ABD	AGM - SPOR
12.	Sortation Allocation Computer, SAC failure	ABD	AGM - SPOR
13.	BHS Supervisory & Control System Failure	ABD	AGM - SPOR
14.	Reclaim Belt Allocation System (RBAS)	ABD	AGM - SPOR
15.	Baggage Conveyance System Failure	ABD	AGM - SPOR
16.	Flight Information Display System	ABD	AGM - SPOR
17.	Crowd Management	TOD / LD	AGM – TOGF / AGM - LS
18.	Terminal Evacuation & Recovery	TOD / LD	AGM – TOGF / AGM - LS
19.	Adverse weather - Terminal Disruptions	TOD / LD	AGM – TOGF / AGM - LS
20.	Adverse weather - FDSMS	TOD	AGM - TOGF
21.	Adverse weather - Prolonged Red Lightning Warning	AD	AGM - Airfield
22.	Adverse weather - Landside Contingencies	LD	AGM – LS, AGM - LIM
23.	Adverse weather – SkyPier Terminal Contingencies	LD	AGM – IC
24.	Adverse weather - Baggage Handling	ABD	AGM – SPOR
25.	Adverse weather - Low Visibility Operations	AD	AGM – Airfield
26.	No Land Link	LD / ALD	AGM – LT&L, AGM – IC / AGM – ALD
27.	Landside Transport Emergencies	LD	AGM - LT&L

28.	Interrupted Land Transportation	LD	AGM - LT&L
29.	Into Plane Refuelling System	AD	AGM - Airfield
30.	Airfield Ground Lighting System Break Down	AD	AGM – Airfield
31.	Airfield Runway System Break Down	AD	AGM – Airfield
32.	APM	ABD	AGM – APM Operations
33.	Fixed Ground Power Break Down	AD	AGM – Airfield
34.	General Building Management System (GBMS) & Airfield SCADA & HV SCADA	TSI	SM – Electrical & Energy
35.	Power Distribution System & Emergency Power System	TSI	SM – Electrical & Energy
36.	Apron Flood Lights Break Down	AD	AGM – Airfield
37.	a. Seawater Provision b. Chiller c. Mechanical Building Management System (MBMS)	TSI	SM – Mechanical & Utilities
38.	Airbridge Break Down	AD	AGM – Airfield
39.	Aircraft Docking Guidance System Break Down	AD	AGM – Airfield
40.	Lift & Escalators	TOD / LD	AGM – EM / AGM – LT&L
41.	Traffic Control & Surveillance / Car Park Vehicle Access Control System	LD	AGM – LS, AGM - LIM
42.	Trunked Mobile Radio	TSS	SM – Airfield & Electronic Systems
43.	a. Water System b. Sewage System	TSI	SM – Buildings & Architecture SM – Mechanical & Utilities
44.	Pre-Conditioned Air System Break Down	AD	AGM – Airfield
45.	RHO on Strike	AD	AGM – S&SD
46.	Fire Safety Management	SSBC	AGM - Safety
47	Cargo Disruptions	ALD	AGM – ALD
48	Catering Service Interruptions Due to System Breakdown	LPAF	AGM - PPAF
49	Inflight Catering Food Poisoning on Passenger Food	LPAF	AGM - PPAF
50	Disruption of Fuel Supply to HKIA for the Permanent Aviation Fuel Facility	LPAF	AGM - PPAF
51	Disruption of Fuel Supply for the On-Airport Fuel System	LPAF	AGM - PPAF
52	UAS Threat	AD	AGM - Airfield

9.0 AAHK Operational Risk Register

9.1 General

1. Identified significant risks are tracked and documented in an Operational Risk Register.
2. The register is reviewed once every year by GM SSBC in conjunction with other GM's of involved departments.
3. A formal review is conducted on each risk once a year during the Annual ORR Review.
4. At the same time, many risks are reviewed and updated on an annual basis when respective business continuity plans are drilled and exercises.
5. Risks are assessed by way of a simple yet proven Likelihood versus Consequences Matrix.
 - a. High Likelihood corresponding with high Consequences are categorized as Severity "A".
 - b. Lower Likelihood corresponding with lower Consequences are gradated down to Severity "C".
6. Category "A" risks must be addressed via the risk mitigation initiatives of risk transfer, risk avoidance and risk reduction to reduce the risks down to at least Severity "B2".
7. High valued risks are prioritized and addressed first.
8. Once these prioritized high value risks are managed, other risks are worked on.
9. It is the aim of the AAHK to reduce all risks down to Severity "B2" or lower.

9.2. Operational Risk Register Matrix

1. Below is the Risk Assessment Matrix showing different categories of risks.
2. The priority of work to be done is to immediately start from those risks categorized as Severity “A”.
3. Next priority are those risks in the Severity “B1” category.
4. Eventually, as time progresses, Severity “B2” risks are to be lowered to Severity “C” category, if the efforts expended are commensurate with benefits gained.

Risk Assessment Matrix		Consequences (1 = Lowest; 5 = Highest)				
		1	2	3	4	5
Likelihood (1 = Lowest; 5 = Highest)	1	C	C	C	C	B2
	2	C	C	C	B2	B1
	3	C	C	B2	B1	A
	4	C	B2	B1	A	A
	5	B2	B1	A	A	A

Risk Assessment Categories	
Severity “A”	Unacceptable risks to be lowered by risk transference, avoidance and reduction initiatives with highest priority
Severity “B1”	Unacceptable risks to be lowered by risk transference, avoidance and reduction initiatives next in priority to Severity “A” risks
Severity “B2”	Acceptable risks if appropriate emergency response / business continuity plans are in place with staff trained to the plans and plans exercised on an annual basis
Severity “C”	Acceptable risks if appropriate emergency response / business continuity plans are in place with staff trained to the plans and plans exercised on a biennial basis

9.3. Operational Risk Register Table

Identified Risks		Risk Category	Risk Category After Mitigation Measures	Preventive & Maintenance Plans (Y/N)	System Fallback & Disaster Recovery Plans (Y/N)	Business Continuity Plans (Y/N)	Business Recovery Plans (Y/N)	Reference Plans/Related Processes & Owner	Mitigation Measures
1	Aircraft Accident	B1 (L=2,C=5)	B2 (L=2,C=4)	N/A	Y	Y	Y	a. EPM Volume 1 Parts 1 to 6, Aircraft Emergencies	i. Manual updated quarterly ii. Crash & rescue exercise once every 2 years iii. Emergency response workshops x16/yr
								b. AEC Operations Manual	i. Manual updated yearly ii. AEC workshops x8/yr
								c. TLPM/073, Airside Crowd Management	i. Drill on yearly basis ii. Workshops x4/yr
								d. TLPM/081, Landside Crowd Management	i. Drill on yearly basis ii. Workshops x4/yr
								e. TLPM/030, Media Handling	
								f. TLPM/033, Passenger Care Team	i. Drills x4/yr ii. Workshop for newly hired staff iii. On-line self-learning module on Intranet
								g. TLPM/043, Stranded Transfer Passenger	i. Drill on yearly basis ii. Workshops x4/yr
								h. EPM Part 16 Flight Rescheduling Control System (Airfield)	i. Manual updated as per need basis ii. Drill X 1 yr (before typhoon season)
								i. AOM Part D Section 2 Para 4.5 Mitigation Parking	i. Manual updated as per need basis
								j. AOM Part D Section 4 Para 7, Aircraft Tractor Deployment under CTOT Issuance	i. Manual updated as per need basis
2	Infectious disease outbreak within HKG	A ¹⁹ (L=5,C=4)	B2 (L=4,C=2)	Y	Y	Y	Y	a. EPM Volume 3 Part 13, Public Health	i. Drill x1/yr ii. Workshops x4/yr iii. Manual reviewed twice a year
								b. TLPM/036 Quarantine Handling	i. Drills x2/yr
								c. BCM BCP-G1 Public Health & Pandemics	i. Manual updated twice a year
3	Suspected infectious disease passenger(s) onboard inbound aircraft	A ¹⁹ (L=5,C=4)	B2 (L=4,C=2)	Y	Y	Y	Y	a. EPM Volume 3 Part 13, Public Health	i. Drill x1/yr ii. Workshops x4/yr iii. Manual reviewed twice a year
								b. TLPM/036, Quarantine Handling	i. Drill x1/yr
								c. BCM BCP-G1 Public Health & Pandemics	i. Manual updated twice a year

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4	Suspected infectious disease passenger(s) onboard inbound cross border ferry / Bonded Bus	A ¹⁹ (L=5,C=3)	B2 (L=4,C=2)	Y	Y	Y	Y	a. EPM Volume 3 Part 13, Public Health	i. Drill x1/yr ii. Workshops x4/yr iii. Manual reviewed twice a year
								b. TLPM/036, Quarantine Handling	i. Drill x1/yr
								c. BCM BCP-G1 Public Health & Pandemics	i. Manual updated twice a year
5	Unlawful interference to aircraft and airport facilities	A (L=3, C=5)	C ¹ (L=2,C=3)	Y	Y	Y	Y	a. HKIA Airport Security Program	
								b. EPM Volume 2 Part 9C, Intrusion	i. Manual reviewed twice a year
								c. AVSECO Security Procedures Manual	
								d. BCM BCP-F1 ACS	i. Manual updated twice a year
6	Unlawful seizure of aircraft	A (L=3, C=5)	C ² (L=2,C=3)	Y	Y	Y	Y	a. HKIA Airport Security Programme	
								b. AVSECO Security Procedures Manual	
								c. EPM Volume 2 Part 9 , Unlawful Seizure of Aircraft	i. Manual reviewed twice a year
7	BW against aircraft	A (L=3,C=5)	C ¹² (L=2,C=3)	Y	Y	Y	Y	a. HKIA Airport Security Programme	
								b. AVSECO Security Procedures Manual	
								c. EPM Volume 2 Part 7, Bomb Warning Against Aircraft	i. Manual reviewed twice a year
8	BW in buildings	A (L=4,C=4)	C ¹³ (L=2,C=3)	Y	Y	Y	Y	a. HKIA Airport Security Programme	
								b. AVSECO Security Procedures Manual	
								c. EPM Volume 2 Part 8, Bomb Warning in Buildings	i. Manual reviewed twice a year
9	Major security incident (Landside Security & AVSEC Risk Management Plan)	A ¹⁵ (L=4,C=4)	C ¹⁴ (L=2,C=3)	Y	Y	Y	Y	a. HKIA Airport Security Programme	
								b. AVSECO Security Procedures Manual	
								c. EPM Volume 2 Part 9A, Major Security Incident Police	i. Manual reviewed twice a year
								d. BCM BCP-F3, Landside Security	i. Manual updated twice a year
								e. BCM BCP-F2, Elevated Security Threat Response	i. Manual updated twice a year
10	CBRN	B1 (L=3,C=4)	B2 (L=3,C=3)	Y	Y	Y	Y	a. HKIA Airport Security Programme	
								b. AVSECO Security Procedures Manual	
								c. EPM Volume 2 Part 9B, CBRN Incident	i. Drills x2/yr ii. Workshops x4/yr iii. Manual reviewed twice a year
								d. BCM BCP-F4, Suspected CBRN Contaminated Arrival Aircraft Management Procedures	i. Manual updated twice a year

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11	Failure to Deliver BSM to BHS	B1 (L=3,C=4)	B2 (L=3,C=3)	Y	Y	Y	Y	a. BCM BCP-C1, BHS	i. Manual updated on a need basis ii. Drills on yearly basis
								b. BD/PM001 Contingency Procedure for BHS Failure to Deliver BSM to BHS (BD)	i. Manual updated on a need basis ii. Drills on yearly basis
								c. BMS Operation Procedure Manual	i. Manual updated on a need basis ii. Practice almost on daily basis
12	Sortation Allocation Computer, SAC failure	B1 (L=3,C=4)	B2 (L=3,C=3)	Y	Y	Y	Y	a. BD/PM002 Contingency Procedure for BHS – SAC Failure Contingency Procedure (BD)	i. Manual updated on a need basis ii. Drills on yearly basis
								b. SAC operation procedure manual	
								c. SAC failure contingency procedure	
13	BHS Supervisory & Control System Failure ²²	B1 (L=3,C=4)	B2 (L=3,C=3)	Y	Y	Y	Y	a. BD/PM003 Contingency Procedure for BHS – MICS Failure Contingency Procedure (BD)	i. Manual updated on a need basis ii. Drills on yearly basis
								b. BCM BCP-C1, BHS	
								c. MICS operation procedure manual	
14	Reclaim Belt Allocation System (RBAS) ³	C (L=2,C=3)	C (L=2,C=2)	Y	Y	Y	Y	a. RBAS Operation Procedure	i. Manual updated on a need basis ii. Drills on yearly basis
								b. Contingency procedure for RBAS failure	
15	Baggage Conveyance System Failure ⁴ & ²²	B1 (L=3,C=4)	B2 (L=3,C=3)	Y	Y	Y	Y	a. BD/PM004 Contingency Procedure for BHS Direct Feed System Contingency Procedure (BD)	i. Manual updated on a need basis ii. Drills on yearly basis
								b. BCM BCP-C1, BHS	
16	Flight Information Display System (FIDS)	B1 (L=3,C=4)	B2 (L=3,C=3)	Y	Y	Y	Y	a. BCM BCP-E2, FIDS	i. Drills x2/yr ii. Manual updated twice a year
								b. TLPM/082, FIDS Contingency Procedures During Flight Disruptions	
								c. TLPM/064 FIDS Contingency Procedure For System Failure	
17	Crowd Management	B1 ^{16, 17} (L=2,C=5)	B2 (L=2,C=4)	Y	Y	Y	Y	a. TLPM/073, Airside Crowd Management	i. Drill on yearly basis ii. Workshops x4/yr
								b. TLPM/081, Landside Crowd Management	
								c. TLPM/033, Passenger Care Team	i. Drills x4/yr ii. Workshop for newly hired staff iii. On-line self-learning module on Intranet
								d. TLPM/042, Sit-in, Protest, Strike, Demonstration Handling (Indoors)	
								e. BCM BCP-B2, Crowd Management	i. Manual updated twice a year
								f. TLPM 086 SkyPier Terminal Operations Procedure, Part 1	

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18	Terminal Evacuation & Recovery	B2 (L=1,C=5)	C (L=1,C=4)	Y	Y	Y	Y	a. BCM BCP-B5, Terminal Evacuation and Recovery	i. Drill x1/yr ii. Workshop x1/yr iii. Manual updated twice a year
								b. TLPM 086, SkyPier Terminal Operations Procedure, Section 23	i. Drill X 1/yr
								c. TLPM010 Fire Alarm Handling Procedure	
19	Adverse Weather - Terminal Disruptions	B1 (L=2,C=5)	B2 (L=2,C=4)	Y	Y	Y	Y	Refer to Crowd Management	
								a. BCM BCP-B4, Major Airport Disruption Preparedness Planning	i. Manual updated twice a year
								b. BCM BCP-H4, Typhoon Preparation & Recovery	
20	Adverse Weather - FDSMS ²¹	B1 (L=3,C=4)	B2 (L=3,C=3)	Y	Y	Y	Y	a. BCM BCP-E2, Flight Information Display System	i. Manual updated twice a year
								b. TLPM/082, FDSMS Contingency Procedures During Flight Disruptions and System Failure	
21	Adverse Weather - Prolonged Red Lightning Warning	B1 (L=3,C=4)	B2 (L=3,C=3)	N/A	Y	Y	Y	a. EPM Part 16 Flight Rescheduling Control System (Airfield)	i. Manual updated as per need basis ii. Drill @ 1/yr (before typhoon season)
								b. AOM Part D Section 2 Para 4.5, Mitigation Parking	i. Manual updated as per need basis
								c. AOM Part D Section 4 Para 8, Aircraft Tractor Deployment under CTOT Issuance	i. Manual updated as per need basis
								d. BCM BCP-A6, Flight Rescheduling Control System	i. Manual updated twice a year
								e. BCM BCP-H2, Prolonged Red Lightning Warning	i. Manual updated twice a year
22	Adverse Weather - Landside Contingencies	B1 (L=3, C=4)	B2 (L=3, C=3)	Y	Y	Y	Y	Refer to Landside Contingencies	
								a. BCM BCP-B4, Major Airport Disruption Preparedness Planning	i. Manual updated twice a year
23	Adverse Weather - SkyPier Terminal Contingencies	B1 (L=3,C=4)	B2 (L=3,C=3)	Y	Y	Y	Y	a. TLPM 086, SkyPier Terminal Operations Procedure, Section 26	i. Drill on yearly basis
24	Adverse Weather - Baggage Handling	B1 (L=3,C=4)	B2 (L=3,C=3)	Y	Y	Y	Y	a. BD/PM005 Contingency Procedure for BHS – Typhoon Contingency Handling (BD)	i. Manual updated on a need basis ii. Drills on yearly
								b. BCM BCP-B4, Major Airport Disruption	i. Manual updated twice a year

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								Preparedness Planning	
								c. BCM BCP-C1, BHS	i. Manual updated twice a year
25	Adverse Weather - Low Visibility Operations	B1 (L=4, C=3)	C (L=4, C=1)	N/A	Y	Y	Y	a. AOM Part F : Operation Procedure During Low Visibility Conditions (Airfield)	i. Drill once every 2 months ii. Manual updated as per need basis
26	No Land Link	B2 ²⁰ (L=1,C=5)	C ²⁰ (L=1,C=4)	N/A	Y	Y	Y	a. EPM Volume 3 Part 14, Landside Transport Emergencies b. TLPM/032, No Land Link Procedures c. BCM BCP-D1, No Land Link	i. Manual reviewed twice a year
27	Landside Transport Emergencies	B1 (L=3,C=4)	B2 (L=3,C=3)	N/A	Y	Y	Y	a. TLPM/028, Landside Transport Emergencies	
28	Interrupted Land Transportation	B1 (L=3,C=4)	B2 (L=3,C=3)	N/A	Y	Y	Y	a. TLPM/087, Taxi Emergency Procedures	
29	Into Plane Refuelling System	B2 (L=1,C=5)	B2 (L=1,C=5)	Y	Y	Y	Y	a. BCM BCP-A8, Aviation Fuel Services Disruption Plan	i. Manual updated twice a year
								b. AOM Part E Section 5 Contingency Procedures for Aviation Fuel Supply System (Airfield)	i. Manual updated as per need basis
								c. AOM Part D Section 2 Para 4.5, Mitigation Parking	i. Manual updated as per need basis
								d. EPM Part 16 Flight Rescheduling Control System (Airfield)	i. Manual updated as per need basis ii. Drill X 1/yr (before typhoon season)
30	Airfield Ground Lighting System Break Down	B1 (L=2, C=5)	B2 (L=2,C=4)	Y	Y	Y	Y	a. Section 3, Fault Response Team Operation, Technical Systems Management Plan	i. Manuals updated annually ii. Drill on yearly basis
								b. Airfield Ground Lighting System Management Plan	
								c. BCM BCP-A3, Airfield Ground Lighting system	i. Manual updated twice a year
								d. EPM Part 16 Flight Rescheduling Control System (Airfield)	i. Manual updated as per need basis ii. Drill X 1/yr (before typhoon season)
31	Airfield Runway System Break Down	B1 (L=2, C=5)	B2 (L=2,C=4)	Y	Y	Y	Y	a. Section 3, Fault Response Team Operation, Technical Systems Management Plan	i. Manuals updated annually ii. Drill on yearly basis
								b. BCM BCP-A4, Airfield Pavement	i. Manual updated twice a year
								c. EPM Part 16 Flight Rescheduling Control System (Airfield)	i. Manual updated as per need basis ii. Drill X 1/yr (before typhoon season)

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32	APM	B1 (L=3,C=4)	B2 (L=3,C=3)	Y	Y	Y	Y	a. Section 3, Fault Response Team Operation, Technical Systems Management Plan	i. Manuals updated annually ii. Drill on yearly basis
								b. APM System Management Plan	
								c. TLPM/006, APM Operations and Emergency Procedure	
								d. TLPM/060, SkyPier Line APM Breakdown Procedure	
								e. BCM BCP-B1, Automated People Mover	i. Manual updated twice a year
33	Fixed Ground Power Supply Break Down	B2 (L=4, C=2)	C (L=3,C=1)	Y	Y	Y	Y	a. Section 3, Fault Response Team Operation, Technical Systems Management Plan	i. Manuals updated annually ii. Drill on yearly basis
								b. Fixed Ground Power System Management Plan	
								a. AOM Part E, Section 3 : Contingency Procedures for Fixed Ground Power Supply System (Airfield)	i. Manuals updated as per need basis
								b. BCM BCP-A5, Fixed Ground Power	i. Manual updated twice a year
34	General Building Management System (GBMS) & Airfield SCADA & HV SCADA	B2 (L=4,C=2)	C (L=3,C=1)	Y	Y	Y	Y	a. Section 3, Fault Response Team Operation, Technical Systems Management Plan	i. Manuals updated annually ii. Drill on yearly basis
								b. GBMS & HV SCADA System Management Plan	
								c. BCM BCP-E3, GBMS & SCADA	i. Manual updated twice a year
35	a. Power Distribution System b. Emergency Power System	B1 (L=2,C=5)	B2 (L=2,C=4)	Y	Y	Y	Y	a. Section 3, Fault Response Team Operation, Technical Systems Management Plan	i. Manuals updated annually ii. Drill on yearly basis
								b. High Voltage (HV) / Low Voltage (LV) and Emergency Power Supply System Management Plan	
								c. BCM BCP-E4, Power Distribution System.	
								d. BCM BCP-E1, Emergency Power System	
36	Apron Flood Lights Break Down	B2 (L=4,C=3)	C (L=2,C=1)	Y	Y	Y	Y	a. AOM Part E, Section 11 : Contingency Procedures for Apron Flood Lights Break Down (Airfield)	i. Manuals updated as per need basis
37	a. Seawater Provision	B1 (L=2,C=5)	B2 (L=2,C=4)	Y	Y	Y	Y	a. Section 3, Fault Response Team Operation, Technical Systems Management Plan	i. Manuals updated annually ii. Drill on yearly basis

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	b. Chiller c. Mechanical Building Management System (MBMS)							b. Seawater Supply System Management Plan c. Seawater Pumping System Management Plan d. BCM BCP-E5, Seawater Provision, Chiller & MBMS e. Mechanical Ventilation and Air Conditioning System Management Plan f. Chiller Systems Management Plan	i. Manual updated twice a year
38	Airbridge Break Down	B1 ⁵ (L=3, C=4)	C ⁵ (L=3,C=2)	Y	Y	Y	Y	a. BCM BCP-A1, Aircraft Loading Bridge b. AOM Part E, Section 2 : Contingency Procedure for Airbridge Operations (Airfield)	i. Manual updated twice a year i. Manual updated as per need basis
39	Aircraft Docking Guidance System Break Down ⁹	A ⁶ (L=3,C=5)	C (L=3,C=1)	Y	Y	Y	Y	a. BCM BCP-A2, Aircraft Docking Guidance System b. AOM Part E, Section 1: Contingency Procedure for Aircraft Docking Guidance System (Airfield)	i. Manual updated twice a year i. Manual updated as per need basis
40	Lift & Escalators	B2 (L=3,C=3)	C (L=3,C=2)	Y	Y	Y	Y	a. BCM BCP-B3, Lifts & Escalators	i. Manual updated twice a year
41	Traffic Control & Surveillance, Car Park Vehicle Access Control System	C ⁷ (L=3 ,C=2)	C ⁷ (L=2 ,C=2)	Y	Y	Y	Y	a. BCM BCP-D2, Traffic Control & Surveillance, Car Park Vehicle Access Control System	i. Manual updated twice a year
42	Trunked Mobile Radio	C (L=2,C=3)	C (L=1,C=3)	Y	Y	Y	Y	a. BCM BCP-E6, TMR b. Tetra TMR system, M619 – “Operation and Maintenance Manual” c. Tetra TMR system, system fallback drill and data backup d. Hitachi TMR system, C 384 – “TMR O&M Manual” e. Hitachi TMR system, system fallback drill and data backup f. BCM Alerting Matrix	i. Manual updated twice a year ii. Review as and when required iii. Drill on an annual basis iv. Review as and when required v. Drill on an annual basis
43	a. Water System b. Sewage System	B2 ⁸ (L=4, C=2)	C ⁸ (L=3,C=1)	Y	Y	Y	Y	a. BCM BCP-E7, Water & Sewage System b. Hydraulic System (Pipeworks and Fixtures) Management Plan	i. Manual updated twice a year
44	Pre-Conditioned Air System Break Down	B2 (L=4, C=2)	C (L=3,C=1)	Y	Y	Y	Y	a. AOM Part E, Section 4: Contingency Procedure for Pre Conditioned Air System (Airfield)	i. Manual updated as per need basis
45	RHO & LMO on Strike	B1 (L=2, C=5)	B2 (L=2, C=4)	Y	Y	Y	Y	a. Individual operations manual of RHO	i. Manual updated as per need basis ii. Annual audit by AA

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								b. AD/BH/PM002_8 : Contingency Procedure for BHS- IAC Decentralization Contingency Procedure (Airfield-BH) c. BCM BCP-A7, Industrial Action Planning	i. Manual updated as per need basis ii. Drills yearly
46	Fire Safety Management	B2 (L=4; C=2)	C (L=3; C=2)	N/A	Y	Y	Y	a. EPM Volume 3 Parts 10A to 10D, Fire in PTB, Fire in GTC, Fire in AA Ancillary Building & Fire in EVT b. Fire Safety Management Plan	i. Terminal, GTC, AA Ancillary Building & EVT Fire Exercise x 12 / Yr
47	Cargo Disruptions	B1 (L=3; C=4)	B2 (L=2; C=4)	Y	Y	Y	Y	a. BCM BCP-C2, Cargo Operations Disruption Contingency Plan AEC - Cargo Group Management Procedures (ALD)	i. Manual updated twice a year. ii. Review/update for contingency manuals/plans as per need basis e.g. After each incident, drill, etc.
48	Catering Service Interruptions Due to System Breakdown	B1 (L=3; C=4)	B2 (L=2; C=4)	Y	Y	Y	Y	a. BCM BCP-A9, Aircraft Catering Services b. CPCS Contingency Manual, Section 1 Major Operation System & Equipment Failure and, Section 4 Environment Systems Failure c. LSG Contingency Plan, Section 10 Hazard-Specific Response Procedures d. GG Contingency Plan, Section 7 Failure of Machinery	i. Manual updated annually/bi-annually ii. Annual facility inspections with TSI/TSS iii. Regular review/update on the contingency manuals/plans
49	Inflight Catering Food Poisoning on Passenger Food	B1 (L=3; C=4)	B2 (L=2; C=4)	Y	Y	Y	Y	a. BCM BCP-A9, Aircraft Catering Services b. CPCS Contingency Manual, Section 10 Food Poisoning c. LSG Food Safety Manual SOP Food Safety Complaint And Handling, Crisis Manual 2.1 Food Safety/Quality Incident d. GG Contingency Plan, Section 9 Food Poisoning	i. Manual updated annually/bi-annually KPI for hygiene condition implemented, referring to FEHD inspection reports ii. Regular review/update on the contingency manuals/plans
50	Disruption of Fuel Supply to HKIA for the Permanent Aviation Fuel Facility ¹⁰	B2 (L=1,C=5)	C (L=1,C=4)	Y	Y	Y	Y	a. BCM BCP-A8, Aviation Fuel Services Disruption Plan b. Emergency /Crisis Response Plan (PAFF) c. PAFF Contingency / Continuity Plan (PAFF) d. PAFF Maintenance Plan (PAFF) e. Product Quality Assurance Procedure (PAFF)	i. Manual updated twice a year. ii. PAFF Management Review is conducted annually as per ISO14001 clause 4.6 on Environmental, Risk and Operational matters iii. The Management Review is minuted and recorded
									The ISO system is annually audited by external accredited auditors

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51	Disruption of Fuel Supply for the On-Airport Fuel System ¹¹	B1 ¹¹ (L=2,C=5)	B2 (L=1,C=5)	Y	Y	Y	Y	a. BCM BCP-A8, Aviation Fuel Services Disruption Plan b. AFSC internal operational procedural manuals c. AFSC internal annual Business Risk Assessment reports	i. Manual updated twice a year
52	UAS Threat ¹⁸	A (L=3, C=5)	B2 (L=1, C=5)	Y	Y	Y	Y	a. EPM Part 17 UAS Threat at HKIA	i. Manual update twice a year
								b. AD-AFD-034 Unmanned Aircraft System Detection System (UASDS) Operation Procedures	i. Manual updated as per need basis

- Note 1. Risk 5 – Was first recorded in Rev 01 (Apr 10) with Risk Category after mitigation as B2 (L4, C2). Amended in 2016, details refer to 2016 ORR Review Questionnaire. Further amended Risk Category After Mitigation Measures to C (L2,C3) in 2018, details refer to 2018 ORR Review Questionnaire.
2. Risk 6 – Was first recorded in Rev 01 (Apr 10) with Risk Category after mitigation as B2 (L1, C6). Amended in 2016, details refer to 2016 ORR Review Questionnaire. Further amended Risk Category After Mitigation Measures to C (L2,C3) in 2018, details refer to 2018 ORR Review Questionnaire.
3. Risk 14 - Was to replace the deleted Risk 14 - T2 BHS Failure since Rev 09 (Mar 2013) with Risk Category before mitigation and after mitigation being B1(L3, C4) and B2 (L3, C3) respectively. Amended in 2016, details refer to 2016 ORR Review Questionnaire.
4. Risk 15 - Was to replace the deleted Risk 15 – BHS System Failure Caused by Bags Dieback to Check-in Counters since Rev 09 (Mar 13). Amended in 2016, details refer to 2016 ORR Review Questionnaire.
5. Risk 38 - Was first recorded in Rev 03 (Dec 10) with Risk Category before mitigation as B1 (L3, C4) and after mitigation as C(L3,C2). Record changed to B1 (L4, C3) and C (L3, C1) respectively between Rev 04 (Aug 11) and Rev 17 (Jun 16). Amended in 2016, details refer to 2016 ORR Review Questionnaire.
6. Risk 39 - Was first recorded in Rev 03 (Dec 10) with Risk Category before mitigation as A (L3, C5). Record changed to B1 (L4, C3) between Rev 04 (Aug 11) and Rev 17 (Jun 16). Amended in 2016, details refer to 2016 ORR Review Questionnaire.
7. Risk 41 – TCSS, was first recorded in Rev 03 (Dec 10) with Risk Category before mitigation and after mitigation as C without likelihood and consequence levels stated until BCM update in Jul 2016. Value reconfirmed in ORR 2016, details refer to 2016 ORR Review Questionnaire.
8. Risk 43 – Water & Sewage System, was first recorded in Rev 03 (Dec 10) with Risk Category before mitigation as B2 and after mitigation as C without likelihood and consequence levels stated. Updated in 2016, details refer to 2016 ORR Review Questionnaire.
9. Risk 39 – Was renamed from Aircraft Parking Aids Breakdown to Aircraft Docking Guidance System Breakdown in Dec 2017.
10. Risk 50 - Was renamed from Into Plane Refueling Supply Chain: PAFF Operations to Disruption of Fuel Supply to HKIA for the Permanent Aviation Fuel Facility in Jan 2017.
11. Risk 51 - Was renamed from Into Plane Refueling Supply Chain: AFSC Operations to Disruption of Fuel Supply for the On-Airport Fuel System in Jan 2017. The Fuel Supply has been replaced by new HDD pipelines in Q2 2018. The risk level has been slightly increased, details refer to 2018 ORR Review Questionnaire.
12. Risk 7 – Risk Category After Mitigation Measures was recorded B2 (L3,C3) and amended to C (L2,C3) in 2018. Since Aug 2018, screening of LAGs over 100ml measure has been extended to Transfer Screening Channels and adopted facial recognition technology to deploy Biometric e-Security Gates at Departure Hall to enhance security level.
13. Risk 8 – Risk Category After Mitigation Measures was recorded B2 (L3,C3) and amended to C (L2,C3) in 2018. Since Aug 2018, screening of LAGs over 100ml measure has been extended to Transfer Screening Channels and adopted facial recognition technology to deploy Biometric e-Security Gates at Departure Hall to enhance security level.
14. Risk 9 - Risk Category After Mitigation Measures was recorded B2 (L3,C3) and amended to C (L2,C3) in 2018, . Since Aug 2018, screening of LAGs over 100ml measure has been extended to Transfer Screening Channels and adopted facial recognition technology to deploy Biometric e-Security Gates at Departure Hall to enhance security level.
15. Risk 9 - Risk Category Before Mitigation Measures was amended from B1 (L3,C4) to A (L4,C4) in 2019. The prevailing civil unrest poses threat to the security at HKIA, eg. Potential intrusion to airside, thus inherit risk level has been changed.
16. Risk 17 - Risk Category Before Mitigation Measures was amended from B1 (L2,C5) to A (L3,C5) in 2019. Several sizable public assemblies at HKIA in 2019 obstructed airport and terminal operations, affected passengers flow which had led to the change of inherit risk level.
17. Risk 17 – With the introduction of the interim Injunction Order in 2019 and National Security Law in 2020, Risk Category Before Mitigation Measures was reverted from A (L3, C5) to B1 (L2,C5) in 2020.
18. Risk 52 – New risk 52 of UAS Threat was first recorded in 2021. Increasing observation of drone activities have potential impact on air and ground movements and may lead to the worst scenario of causing aircraft accident.
19. Risk 2 & 3 and 4 – Risk Category Before Mitigation Measures was amended from A (L4,C4) to A (L5,C4) for Risks 2 & 3; and from B1 (L4,C3) to A (L5,C3) for Risk 4 in 2021. COVID-19 remained 'emergency' level with the virus developing variants which are affecting the airport and heightening its pandemic control measures.
20. Risk 26 – Risk Category Before Mitigation Measures was amended from B1 (L2,C5) to B2 (L1, C5) and After Mitigation Measures was amended from B2 (L2,C4) to C (L1,C4) in 2021. Tuen Mun-Chek Lap Kok Link (TM-CLKL) was commissioned in Dec 2020 and provided alternate road link connecting the downtown. The likelihood of total lost of road links is lowered.
21. Risk 20 – Renamed from 'Adverse Weather – FIDS' to 'Adverse Weather – FDSMS' in year 2019 due to the gradual replacement of display system.
22. Risk 13 and 15: Risk 13 renamed from 'MICS Failure' to "BHS Supervisory & Control System Failure" and Risk 15 renamed from 'Direct Feed System (DFS) Failure' to "Baggage Conveyance System Failure" in 2023. This is to better group the existing and new Early Bag System (EBS) and Automated Arrival Baggage Delivery (AABD) with similar functionality under the same risks.

10.0 Business Partner Operational Risk Register

10.1. General

1. Airport operations depend on the efficient interplay of all business partners, the AAHK integrated the risk management plans of each business partner to address the business continuity of key processes and systems and incorporate them into our Business Continuity Management System (BCMS).
2. Starting in 2017, individual Business Partner (BP) Operational Risk Register (ORR) is established in sequence schedule covering major BPs. Refer to 10.3. Identified significant risks are tracked and documented in the BP ORR in association with respective Business Continuity Plans.
3. The BP ORR contains (i) core risks that are critical and commonly applied to airport operations, which already kept in AAHK's risk registry; and (ii) risks that are specific to BPs' own business and operations.
4. The BP ORR is to be reviewed once every three years by AGM, BCP of SSBC in conjunction with other involved departments and BPs.
5. In between, BPs are encouraged to review and update their risks and business continuity plans regularly when respective business continuity plans are drilled and exercises.
6. Risks are assessed, prioritised and addressed according to the risk assessment matrix of respective BP.
7. All high priority risks are expected to be addressed with proper risk mitigation initiatives of risk transfer, risk avoidance and risk reduction to reduce the risks down to the acceptable risk level.

10.2. Operational Risk Register Matrix

1. Each BP has its own Risk Assessment Matrix showing different categories of risks. Based on the in-depth deliberation with respective BP, it is agreed to respect and appreciate the differences amongst these Matrices and it may not be necessary to force alignment between them. However, BPs are required to provide their Risk Assessment Matrix for AAHK reference. Refer to Appendix I.

10.3. Business Partner Operational Risk Register Table

10.3.1. Core Risks

Identified Risk	Company	Risk Category	Risk Category After Mitigation Measures	Operational Contingency / Business Continuity Plans (Y/N)	Reference Plans / Related Processes	Mitigation Measures
Ramp Handling Operator (RHO)						
1	Infectious disease outbreak within HKG	HAS	Moderate	Low	Y	HAS Crisis Management Manual Vol. 2,3 & 4
		MCAT	Reduce	Retain	Y	MCAS EPM Chapter 10, 13 & 16 MCAS BCP Chapter 1.4, 1.5, 2.4.6, 4 & 7 MCAS Quality Manual MCAS Media Enquiry Handling Workflow
		SATS	3A	3C	Y	SATSHK Emergency Procedures Manual Chapter 9 & 12
2	Bomb warning	HAS	Moderate	Low	Y	HAS Crisis Management Manual Vol. 2 & 4
		MCAT	Retain	Retain	Y	MCAS EPM Chapter 5, 13 & 16 MCAS BCP Chapter 1.5 & 2.4.6 MCAS Quality Manual
		SATS	3B	2C	Y	SATSHK Emergency Procedures Manual Chapter 4 & 12
3	Aircraft accident	HAS	High	Moderate	Y	HAS Crisis Management Manual Vol. 2,4 & 5
		MCAT	Reduce	Reduce	Y	MCAS EPM Chapter 2, 3, 13 & 16 MCAS BCP Chapter 1.4, 1.5, 2.4.6, 5 & 7 MCAS Quality Manual MCAS Media Enquiry Handling Workflow
		SATS	3A	2C	Y	SATSHK Emergency Procedures Manual Chapter 2 & 6
4	Adverse weather	HAS	Moderate	Low	Y	HAS Crisis Management Manual Vol. 2 & 5
		MCAT	Reduce	Reduce	Y	MCAS EPM Chapter 9, 13 & 16 MCAS BCP Chapter 1.4, 1.5 & 2.4.6 MCAS Quality Manual
		SATS	4B	2C	Y	SATSHK Emergency Procedures Manual Chapter 8 & 11

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Identified Risk		Company	Risk Category	Risk Category After Mitigation Measures	Operational Contingency / Business Continuity Plans (Y/N)	Reference Plans / Related Processes	Mitigation Measures
5	No land link	HAS	Low	Insignificant	Y	HAS Crisis Management Manual Vol. 2 & 4	Manual updates Exercise & drill
		MCAT	Retain	Retain	Y	MCAS EPM Chapter 13 & 16 MCAS BCP Chapter 1.5 & 2.4.6 MCAS Quality Manual	Manual updates
		SATS	4B	3C	Y	SATSHK Business Continuity Plan Section 10	Manual updates
Cargo Terminal Operator (CTO)							
1	Infectious disease outbreak within HKG	AAT	Low risk	Low risk	Y	AAT Business Continuity Plan Section 11	Manual updates Training Exercise & drill
		CPSL	Moderate	Low	Y	CPSL Crisis Management Manual Vol. 4 Chapter 7	Manual updates
		DHL	Medium	Medium	Y	DHL Operations Contingency Plan Chapter 3.2	Manual updates Training Exercise & drill
		HACTL	Minor	Minor	Y	Hactl Emergency & Business Continuity Plan Appendix 12	Manual updates Training
2	Bomb warning	AAT	Low risk	Low risk	Y	AAT Contingency Plan Chapter 6	Manual updates Training Exercise & drill
		CPSL	Moderate	Low	Y	CPSL Crisis Management Manual Vol. 3 Chapter 4	Manual updates Exercise & drill
		DHL	High	Medium	Y	DHL Operations Contingency Plan Chapter 3.3	Manual updates Training Exercise & drill
		HACTL	Major	Moderate	Y	Hactl Emergency Procedures Manual Chapter 7	Manual updates Training Exercise & drill
3	Adverse weather	AAT	Low risk	Low risk	Y	AAT Contingency Plan Chapter 5	Manual updates Training Exercise & drill
		CPSL	Moderate	Low	Y	CPSL Crisis Management Manual Vol. 3 Chapter 9	Manual updates Exercise & drill
		DHL	High	Medium	Y	DHL Operations Contingency Plan Chapter 3.4	Manual updates Training Exercise & drill
		HACTL	Moderate	Minor	Y	Hactl Emergency Procedures Manual Chapter 10	Manual updates Training Exercise & drill

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Identified Risk		Company	Risk Category	Risk Category After Mitigation Measures	Operational Contingency / Business Continuity Plans (Y/N)	Reference Plans / Related Processes	Mitigation Measures
Into-plane Refueling Operator							
1	Infectious disease outbreak within HKG	AFSC	High	High	Y	AFSCR CRP – Section 24.0 AFSCR Operation Risk Mitigation Plan	Manual updates
		CNAF	5C	3D	Y	CNAF C1 Infectious disease outbreak within HKG	Manual updates
		WFS	Medium	Low	Y	Business Contingency Plan 3 rd edition Emergency Procedure Manual 5 th edition	Manual updates Exercise & drill
2	Bomb warning	AFSC	Medium	Low	Y	AFSCR CRP – Section 20.1 AFSCR Operation Risk Mitigation Plan	Manual updates Training Exercise & drill
		CNAF	3A	1A	Y	CNAF C2 Bomb Threat	Manual updates
		WFS	Medium	Low	Y	Business Contingency Plan 3 rd edition Emergency Procedure Manual 5 th edition	Manual updates Exercise & drill
3	Aircraft accident	AFSC	Medium	Low	Y	AFSCR CRP – Section 17.8 AFSCR Operation Risk Mitigation Plan	Manual updates Training Exercise & drill
		CNAF	3B	1B	Y	CNAF C3 Aircraft Accident	Manual updates
		WFS	Medium	Low	Y	Business Contingency Plan 3 rd edition Emergency Procedure Manual 5 th edition	Manual updates Exercise & drill
4	Adverse weather	AFSC	High	Medium	Y	AFSCR CRP – Section 20.0 AFSCR Operation Risk Mitigation Plan	Manual updates
		CNAF	4C	1D	Y	CNAF C4 Adverse Weather	Manual updates
		WFS	Medium	Low	Y	Business Contingency Plan 3 rd edition Emergency Procedure Manual 5 th edition	Manual updates Exercise & drill
Aviation Fuel Tank Farm							
1	Infectious disease outbreak within HKG	AFSC	High	High	Y	AFSCO CRP – Section 23.0 Crisis Communication Manual	Manual updates
2	Bomb warning	AFSC	Medium	Low	Y	AFSCO CRP – Section 21.2 Crisis Communication Manual	Manual updates Training Exercise & drill

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Identified Risk		Company	Risk Category	Risk Category After Mitigation Measures	Operational Contingency / Business Continuity Plans (Y/N)	Reference Plans / Related Processes	Mitigation Measures
3	Aircraft accident	AFSC	Medium	Low	Y	AFSCO CRP – Section 17.11 Crisis Communication Manual	Manual updates Training Exercise & drill
Aircraft Caterer							
1	Infectious disease outbreak within HKG	CPCS	High	High	Y	CPCS BCP for COVID-19 CPCS BCP for Highly Infectious Diseases	Manual updates Training
		GG	High	Low	Y	GG Contingency Plan Ch. 15	Manual updates
		LSG	Medium Risk	Medium Risk	Y	LSG Contingency Plan Ch. 8, 9.4, 10.9, 11 & 12	Manual updates
2	Adverse weather	CPCS	Insignificant	Insignificant	Y	CPCS Contingency Manual Ch. 19	Manual updates Training
		GG	High	Low	Y	GG Contingency Plan Ch. 12	Manual updates
		LSG	Medium Risk	Medium Risk	Y	LSG Contingency Plan Ch. 10.11	Manual updates
3	Aircraft accident	CPCS	Low	Low	Y	CPCS Contingency Manual Ch. 13.2	Manual updates
		GG	High	Low	Y	GG Contingency Plan Ch. 3	Manual updates
		LSG	Small Risk	Small Risk	Y	LSG Group Crisis Manual Ch. 2.3	Manual updates
4	Bomb warning	CPCS	Moderate	Moderate	Y	CPCS Contingency Manual Ch. 17.1 Security Induction Training Course Document Bomb Threat Report Form	Manual updates Training Exercise & drill
		GG	High	Low	Y	GG Contingency Plan Ch. 4	Manual updates
		LSG	Medium Risk	Medium Risk	Y	LSG Group Crisis Manual Ch. 2.5	Manual updates

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Identified Risk	Company	Risk Category	Risk Category After Mitigation Measures	Operational Contingency / Business Continuity Plans (Y/N)	Reference Plans / Related Processes	Mitigation Measures
Line Maintenance & Base Maintenance Operators						
1	Infectious disease outbreak within HKG	CASL	N/A	N/A	Y	CASL Emergency Response Plan
		HAEKO	---	Moderate	Y	HAEKO BCPCH08 Epidemics and Pandemics
		PAPAS	3C	2B	Y	PAPAS Business Continuity Plan for Major Epidemic Outbreak
2	Bomb Warning	CASL	N/A	N/A	Y	CASL Emergency Response Plan
		HAEKO	---	High	Y	HAEKO BCPCH04 Security Threat
		PAPAS	2D	2B	Y	PAPAS SMS Manual
3	Aircraft accident	CASL	N/A	N/A	Y	CASL Emergency Response Plan
		HAEKO	N/A	N/A	Y	AAHK EPM
		PAPAS	3D	2C	Y	SMS Manual
4	Adverse weather	CASL	N/A	N/A	Y	CASL Emergency Response Plan
		HAEKO	---	Ultra	Y	HAEKO BCPCH07 Typhoon
		PAPAS	2C	2B	Y	PAPAS LMOPM, SMS Manual

Remark: CASL maintains As Low As Reasonably Practicable risk operation model in the daily operation.

10.3.2. Risks Specific to Business Partners' Own Business

Identified Risk	Company	Risk Category	Risk Category After Mitigation Measures	Operational Contingency / Business Continuity Plans (Y/N)	Reference Plans / Related Processes	Mitigation Measures
Ramp Handling Operator (RHO)						
1	Loss of access to workplace - operations control centre	HAS	Low	Insignificant	Y	HAS Crisis Management Manual Vol. 2, 3 & 4
		MCAT	Retain	Retain	Y	MCAS EPM Chapter 13 & 16 MCAS BCP Chapter 1.5 & 5.5 MCAS Quality Manual
		SATS	3C	2C	Y	SATSHK Business Continuity Plan Section 5
2	Loss of access to workplace - offices	HAS	Low	Insignificant	Y	HAS Crisis Management Manual Vol. 2, 3 & 4
		MCAT	Retain	Retain	Y	MCAS EPM Chapter 13 & 16 MCAS BCP Chapter 1.5, 2.4.6 & 5 MCAS Quality Manual
		SATS	3B	2C	Y	SATSHK Business Continuity Plan Section 5
3	Loss of ramp handling staff	HAS	Moderate	Low	Y	HAS Crisis Management Manual Vol. 2, 3 & 4
		MCAT	Retain	Retain	Y	MCAS EPM Chapter 13 & 16 MCAS BCP Chapter 1.5 & 2.4.6 MCAS Quality Manual
		SATS	3B	3D	Y	SATSHK Business Continuity Plan Section 10
4	Internal computer system failure	HAS	Moderate	Low	Y	HAS Crisis Management Manual Vol. 2, 3 & 4
		MCAT	Reduce	Retain	Y	MCAS EPM Chapter 13 & 16 MCAS BCP Chapter 1.5 & 8.14 MCAS Quality Manual
		SATS	3B	3D	Y	SATSHK Business Continuity Plan Section 6
5	Communication system failure	HAS	Low	Insignificant	Y	HAS Crisis Management Manual Vol. 2, 3 & 4
		MCAT	Reduce	Retain	Y	MCAS EPM Chapter 13 & 16 MCAS BCP Chapter 1.5 & 6.1 MCAS Quality Manual

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Identified Risk		Company	Risk Category	Risk Category After Mitigation Measures	Operational Contingency / Business Continuity Plans (Y/N)	Reference Plans / Related Processes	Mitigation Measures
		SATS	3B	2C	Y	SATSHK Business Continuity Plan Section 8	Manual updates
6	Loss of public supplies - battery charging facilities	HAS	Low	Low	Y	HAS Crisis Management Manual Vol. 2, 3 & 4	Manual updates
		MCAT	Retain	Retain	Y	MCAS EPM Chapter 13 & 16 MCAS BCP Chapter 8.7.1 & 8.8.1 MCAS Quality Manual	Manual updates
		SATS	3A	3D	Y	SATSHK Business Continuity Plan Section 7	Manual updates
7	Power supply interruption at RHOs' offices	HAS	Low	Insignificant	Y	HAS Crisis Management Manual Vol. 2, 3 & 4	Manual updates
		MCAT	Retain	Retain	Y	MCAS EPM Chapter 13 & 16 MCAS BCP Chapter 1.4, 1.5, 3, 5.5 & 8 MCAS Quality Manual	Manual updates
		SATS	3A	3C	Y	SATSHK Business Continuity Plan Section 5	Manual updates
8	Insufficient GSE (short-term)	HAS	Moderate	Low	Y	HAS Crisis Management Manual Vol. 2, 3 & 4	Manual updates
		MCAT	Retain	Retain	Y	MCAS EPM Chapter 13 & 16 MCAS BCP Chapter 1.5, 8.7.1 & 8.8.1 MCAS Quality Manual	Manual updates
		SATS	3B	3D	Y	SATSHK Business Continuity Plan Section 9	Manual updates
9	Airbridge break down	HAS	Moderate	Low	Y	HAS Crisis Management Manual Vol. 2 & 4	Manual updates Training Exercise & drill
		MCAT	Avoid	Reduce	Y	MCAS EPM Chapter 13 & 16 MCAS BCP Chapter 1.5 & 8.2.3 MCAS Quality Manual	Manual updates
		SATS	3C	2C	Y	SATSHK Ramp Services Operations Manual Section 3.7.3	Manual updates
10	Baggage Handling System failure	HAS	Moderate	Low	Y	HAS Crisis Management Manual Vol. 2,3 & 4	Manual updates
		MCAT	Avoid	Reduce	Y	MCAS EPM Chapter 13 & 16 MCAS BCP Chapter 1.5, 8.1.6 & 8.2.4 MCAS Quality Manual	Manual updates Exercise & drill

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Identified Risk		Company	Risk Category	Risk Category After Mitigation Measures	Operational Contingency / Business Continuity Plans (Y/N)	Reference Plans / Related Processes	Mitigation Measures
		SATS	4B	3D	Y	SATSHK Business Continuity Plan Section 6 SATSHK Ramp Services Operations Manual Chapter 10.5.8 (BMS Failure Handling)	Manual updates
Cargo Terminal Operator (CTO)							
1	Internal computer system failure	AAT	Low risk	Low risk	Y	AAT Contingency Plan Section 3	Manual updates Training Exercise & drill
		CPSL	Moderate	Low	Y	CPSL Crisis Management Manual Vol. 4 Chapter 2	Manual updates Exercise & drill
		DHL	High	Medium	Y	DHL Operations Contingency Plan Chapter 3.5	Manual updates Training Exercise & drill
		HACTL	Minor	Minor	Y	Hactl Emergency Procedures Manual Chapter 9	Manual updates Training Exercise & drill
2	Power supply interruption at CTOs' offices	AAT	Low risk	Low risk	Y	AAT Contingency Plan Section 1	Manual updates Training Exercise & drill
		CPSL	Moderate	Low	Y	CPSL Crisis Management Manual Vol. 4 Chapter 4	Manual updates Exercise & drill
		DHL	Medium	Medium	Y	DHL Operations Contingency Plan Chapter 3.6	Manual updates Training Exercise & drill
		HACTL	Minor	Minor	Y	Hactl Emergency Procedures Manual Chapter 8	Manual updates
Into-plane Refueling Operator							
1	Fuel spillage during aircraft refueling	AFSC	High	Medium	Y	AFSCR CRP – Section 17.3 AFSCR CRP#2 – CP2-SRP-02 AFSCR Operation Risk Mitigation Plan	Manual updates Training
		CNAF	4C	2D	Y	CNAF C5 Fuel Spillage During Aircraft Refueling	Manual updates
		WFS	Medium	Low	Y	Business Contingency Plan 3 rd edition Emergency Procedure Manual 5 th edition	Manual updates Exercise & drill
2	Internal computer system failure	AFSC	High	Medium	Y	AFSCR CRP – Section 23.0 AFSCR Operation Risk Mitigation Plan	Manual updates Training
		CNAF	3D	2D	Y	CNAF O1 Computer System Failure	Manual updates

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Identified Risk		Company	Risk Category	Risk Category After Mitigation Measures	Operational Contingency / Business Continuity Plans (Y/N)	Reference Plans / Related Processes	Mitigation Measures
		WFS	Low	Low	Y	Business Contingency Plan 3 rd edition Emergency Procedure Manual 5 th edition	Manual updates Exercise & drill
3	Loss of access to workplace	AFSC	Medium	Medium	Y	AFSCR Operation Risk Mitigation Plan	Manual updates
		CNAF	3C	1D	Y	CNAF O2 Loss of Access to Workplace	Manual updates
		WFS	Low	Low	Y	Business Contingency Plan 3 rd edition Emergency Procedure Manual 5 th edition	Manual updates Exercise & drill
Aviation Fuel Tank Farm							
1	Internal computer system failure	AFSC	High	Medium	Y	AFSCO CRP – Section 17.18 Crisis Communication Manual	Manual updates Training Exercise & drill
2	Leaks from supply pipeline / fuel hydrant	AFSC	High	Medium	Y	AFSCO CRP – Section 17.3 AFSCO CRP#2 – CP2-SRP-03 / 07 / 10 Crisis Communication Manual	Manual updates Training Exercise & drill
3	Overflow during filling of tanks	AFSC	Medium	Medium	Y	AFSCO CRP – Section 17.9 AFSCO CRP#2-CP2-SRP-08 Crisis Communication Manual	Manual updates Training Exercise & drill
4	Tank farm fire	AFSC	High	Medium	Y	AFSCO CRP – Section 17.4 Crisis Communication Manual	Manual updates Training Exercise & drill
Aircraft Caterer							
1	Water supply interruption	CPCS	High	Moderate	Y	CPCS Contingency Manual Ch. 7.3	Manual updates Training
		GG	Moderate	Low	Y	GG Contingency Plan Ch. 6	Manual updates
		LSG	Small Risk	Small Risk	Y	LSG Contingency Plan Ch. 8, 9.4, 10.6, 11, 12	Manual updates
2	Electricity interruption	CPCS	High	Moderate	Y	CPCS Contingency Manual Ch. 7.1	Manual updates Training Exercise & drill

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Identified Risk		Company	Risk Category	Risk Category After Mitigation Measures	Operational Contingency / Business Continuity Plans (Y/N)	Reference Plans / Related Processes	Mitigation Measures
		GG	Moderate	Low	Y	GG Contingency Plan Ch. 5	Manual updates
		LSG	Small Risk	Small Risk	Y	LSG Contingency Plan Ch. 8, 9.4, 9.5, 9.6, 10.5, 11, 12	Manual updates
3	Towngas supply interruption	CPCS	Insignificant	Insignificant	Y	CPCS Contingency Manual Ch. 7.2	Manual updates Training Exercise & drill
		GG	Moderate	Low	Y	GG Contingency Plan Ch. 11	Manual updates
		LSG	Small Risk	Small Risk	Y	LSG Contingency Plan Ch. 8, 9.4, 10.7, 11, 12	Manual updates
4	Catering service interruptions due to system breakdown (i.e. equipment, machinery, IT system)	CPCS	Moderate	Moderate	Y	CPCS Contingency Manual Ch. 1.3	Manual updates Training Exercise & drill
		GG	Moderate	Low	Y	GG Contingency Plan Ch. 7	Manual updates
		LSG	Small Risk	Small Risk	Y	LSG Contingency Plan Ch. 8, 9.4, 10.4, 10.10, 11, 12	Manual updates
5	Inflight catering food poisoning on passenger food	CPCS	Low	Low	Y	CPCS Contingency Manual Ch. 10.2	Manual updates Training Exercise & drill
		GG	Moderate	Low	Y	GG Contingency Plan Ch. 9	Manual updates
		LSG	Small Risk	Small Risk	Y	LSG Group Crisis Manual Ch. 2.1, 3.1	Manual updates

Line Maintenance & Base Maintenance Operators

1	Internal computer system failure	CASL	N/A	N/A	Y	CASL Emergency Response Plan	Manual updates
		HAEKO	---	Moderate	Y	HAEKO IT system Breakdown	Manual updates Training Exercise & drill
		PAPAS	2C	1C	Y	PAPAS Business Continuity Plan	Manual updates Exercise & drill

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Identified Risk		Company	Risk Category	Risk Category After Mitigation Measures	Operational Contingency / Business Continuity Plans (Y/N)	Reference Plans / Related Processes	Mitigation Measures
2	Communication system failure	CASL	N/A	N/A	Y	Business Continue Plan for abnormal operation	Manual updates
		HAEKO	---	Moderate	Y	HAEKO BCPCH01 IT system Breakdown	Manual updates Training Exercise & drill
		PAPAS	2C	1C	Y	PAPAS Business Continuity Plan	Manual updates Exercise & drill
3	Loss of operational staff	CASL	N/A	N/A	Y	Business Continue Plan for abnormal operation	Manual updates
		HAEKO	---	Moderate	Y	HAEKO BCPCH05-01 Temporary Staff Shortage	Manual updates
		PAPAS	3B	2B	Y	PAPAS HIRA 220005	Manual updates
4	Loss of public supplies – battery charging facilities	CASL	N/A	N/A	Y	CASL Emergency Response Plan	Manual updates
		HAEKO	---	Moderate	Y	HAEKO BCPCH06-03 Electricity Outage	Manual updates Training Exercise & drill
		PAPAS	2C	1C	Y	PAPAS Business Continuity Plan	Manual updates
5	Power supply interruption at offices	CASL	N/A	N/A	Y	CASL Emergency Response Plan	Manual updates
		HAEKO	---	Moderate	Y	HAEKO BCPCH06-03 Electricity Outage	Manual updates Training Exercise & drill
		PAPAS	3B	2B	Y	PAPAS SMS Manual	Manual updates Exercise & drill
6	Fuel spillage during aircraft refueling	CASL	N/A	N/A	Y	CASL Emergency Response Plan	Manual updates Exercise & drill
		HAEKO	N/A	N/A	Y	HAEKO Chemical Spillage Procedure (Occupational Safety and Health Management Plan Section 2.7.4)	Manual updates Training
		PAPAS	3B	2B	Y	PAPAS SMS Manual	Manual updates Exercise & drill
7	GSE fire	CASL	N/A	N/A	Y	CASL Emergency Response Plan	Manual updates Exercise & drill
		HAEKO	---	High	Y	HAEKO BCPCH06-01 Fire	Manual updates Training Exercise & drill
		PAPAS	3B	2B	Y	PAPAS SMS Manual	Manual updates Exercise & drill

Remark: CASL maintains As Low As Reasonably Practicable risk operation model in the daily operation.

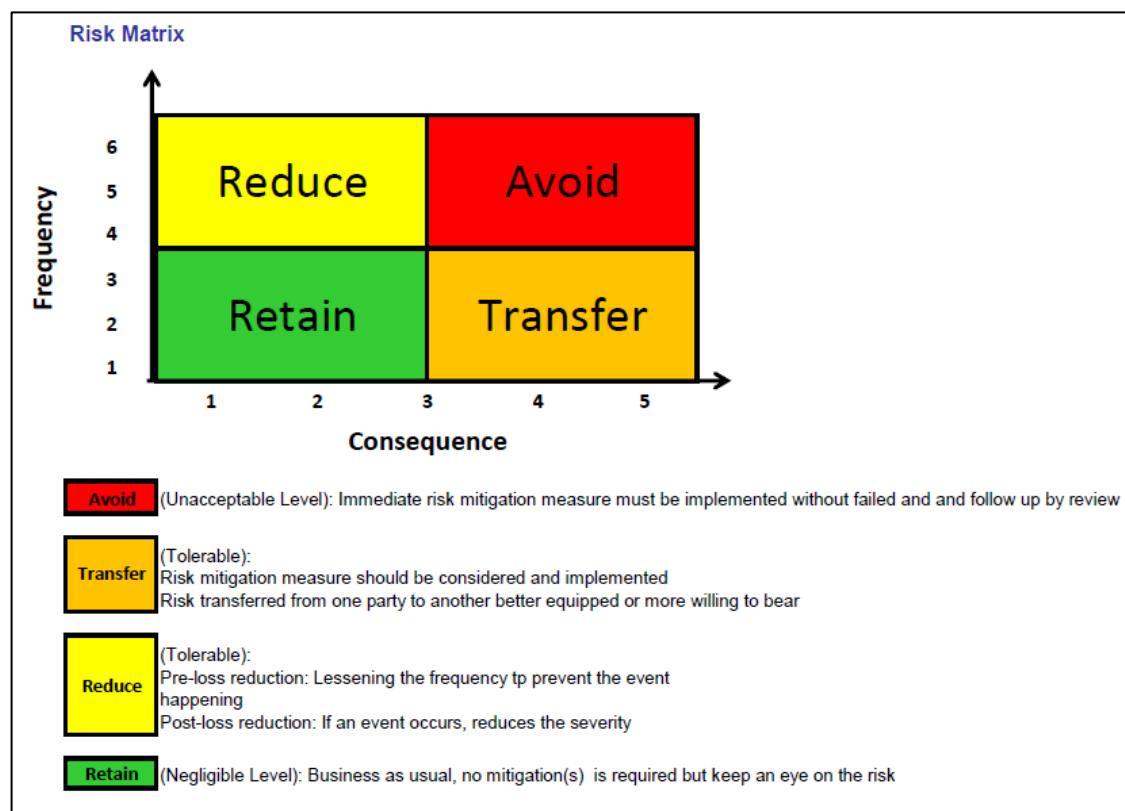
Appendix I : Business Partners Risk Assessment Matrix

Hong Kong Airport Services Limited (HAS)

RISK MATRIX		Consequence Level				
Likelihood Level		(1) Insignificant	(2) Minor	(3) Moderate	(4) Major	(5) Catastrophic
(A) Almost certain	H	H	E	E	E	E
(B) Likely	M	H	H	E	E	E
(C) Moderate	L	M	H	H	E	E
(D) Unlikely	L	L	M	H	E	E
(E) Rare	L	L	M	H	H	H

RISK ASSESSMENT OUTCOME						
E : Extreme Risk	Risk level is intolerable. Immediate actions are required. If possible, the activity should be ceased immediately					
H: High Risk	Immediate actions are required. Risk level should be reduced as soon as possible.					
M: Moderate Risk	Actions are required and the action dates must be specified					
L: Low Risk	Risk level is considered tolerable, if the existing control measures and routine procedures are maintained. No additional action is required.					

Menzies CNAC Air Terminal Services Limited (MCAT)



SATS HK Limited (SATS)

Risk probability	Risk severity				
	Catastrophic A	Hazardous B	Major C	Minor D	Negligible E
5 – Frequent	5A	5B	5C	5D	5E
4 – Occasional	4A	4B	4C	4D	4E
3 – Remote	3A	3B	3C	3D	3E
2 – Improbable	2A	2B	2C	2D	2E
1 – Extremely improbable	1A	1B	1C	1D	1E

Assessment Risk Index	Management Criteria
5A, 5B, 5C, 4A, 4B, 3A	Unacceptable under the existing circumstances
5D, 5E, 4C, 3B, 3C, 2A, 2B	Risk control/mitigation requires management decision
4D, 4E, 3D, 2C, 1A, 1B	Acceptable after review of the operation
3E, 2D, 2E, 1C, 1D, 1E	Acceptable

Asia Airfreight Terminal Co Ltd (AAT)

AAT Risk Matrix						
Probability	Extremely Low	Low	Unlikely	Likely	Very likely	Extremely likely
Consequence	1	2	3	4	5	6
Very High	6	6	12	18	24	30
High	5	5	10	15	20	25
Significant	4	4	8	12	16	20
Moderate	3	3	6	9	12	15
Low	2	2	4	6	8	10
Very Low	1	1	2	3	4	5

Residual Risk Rating (Probability X Consequence)		
High Risk		25-36
Medium Risk		13-24
Low Risk		1-12

Cathay Pacific Services Limited (CPSL)

	Negligible 1	Minor 2	Moderate 3	Major 4	Catastrophic 5
Almost Certain 5	LOW	MODERATE	HIGH	ULTRA	ULTRA
Likely 4	LOW	MODERATE	HIGH	ULTRA	ULTRA
Possible 3	LOW	LOW	Moderate	HIGH	ULTRA
Unlikely 2	IN SIGNIFICANT	LOW	LOW	Moderate	HIGH
Rare 1	IN SIGNIFICANT	IN SIGNIFICANT	LOW	Moderate	HIGH

Management Signalling - Actions Required

Risk Ranking	Urgency of Action	Process	Level of Management involvement	Oversight
ULTRA	Stop. Immediate attention required. Do not proceed until risk is mitigated appropriately.	Specific action plan required before operation re-starts	Chief Executive Officer	EXECOM
HIGH	Significant risks that require immediate attention.	Risks must be understood and a high level of risk reduction and control in place before operations continue.	Department Head (M1/M2)	Chief Executive Officer
Moderate	Significant risks that require appropriate mitigation and monitoring.	Management responsibility identified. Specific action(s) allocated. Implementation timetable determined.	Department Manager (M2/M3)	Department Head (M1/M2)
LOW	Risks are considered as not significant. Appropriate mitigation and monitoring required.	Normally be managed by routine procedures or minor mitigation.	G1 / M3	Department Manager (M2/M3)
IN SIGNIFICANT	Risks are considered to be insignificant. No mitigation required.	For statistics only or minimal intervention.	G1 / G2	None

DHL Aviation (Hong Kong) Limited (DHL)

Risk Assessment Matrix		Impact				
		1 – Insignificant	2 – Minor	3 – Moderate	4 – Major	5 – Massive
Likelihood	5 – Expected	5	10	15	20	25
	4 – Likely	4	8	12	16	20
	3 – Probably	3	6	9	12	15
	2 – Unlikely	2	4	6	8	10
	1 – Rare	1	2	3	4	5

Risk Index (= Likelihood x Impact)	Risk Category
1 to 4	Low
5 to 12	Medium
13 to 25	High

Hong Kong Air Cargo Terminal Limited (HACTL)

Minor	Likelihood	1	2	3	4	
	Impact	1-2	1-2	1	1	
Moderate	Likelihood	1	2	3	4	5
	Impact	3	3	2	2	1-2
Major	Likelihood	1	2	3	4	5
	Impact	4-5	4	3-4	3	3
Catastrophic	Likelihood		2	3	4	5
	Impact		5	5	4-5	4-5

Likelihood Rating			
Rating	Descriptor	Annual Frequency	Probability
1	Rare	Once in 25 years or more	<10% chance of occurrence over life of asset or project
2	Unlikely	Once in 10 - 25 years	10% up to 35% chance of occurrence over life of asset or project
3	Possible	Once in 5 - 10 years	35% up to 65% chance of occurrence over life of asset or project
4	Likely	Once in 2 - 5 years	65% up to 90% chance of occurrence over life of asset or project
5	Frequent / Almost certain	Once or more in less than 2 year	90% or greater chance of certain occurrence over life of asset or project

Impact Rating							
Financial Impact			Reputational Impact				
Rating	Descriptor	Total cost in USD'm		OR	Reputation & Brand Image		
		From	To		Rating	Descriptor	Reputation & Brand Image
1	Insignificant	0%	5%	<3	1	Insignificant	Little to no media exposure
2	Minor	5%	10%	3 - 5	2	Minor	Visible local media exposure
3	Moderate	10%	30%	5 - 20	3	Moderate	National media exposure
4	Major	30%	70%	20 - 40	4	Major	Significant international and social media exposure; significant loss of market share
5	Extreme	70%	NA	>40	5	Extreme	Very significant international and social media exposure; game changing loss of market share

Velocity Rating		
Rating	Descriptor	Definition
1	Slow	Could impact the business within a year or more
2	Medium	Could impact the business within several months
3	Rapid	Could impact the business within a matter of days to a few weeks

AFSC Operations Limited / AFSC Refuelling Limited (AFSC)

Score	Likelihood	Likelihood Definition	Occurrence / Year
5	Likely	Could occur several times during over plant lifetime	> 10-2
4	Unlikely	Could occur once for every 10 to 20 similar plants over 20 to 30 years of plant lifetime	10-2 - 10-3
3	Very unlikely	- One time per year for at least 1000 units - One time for every 100 to 200 similar plants in the world over 20 to 30 years of plant lifetime - Has already occurred in the company but corrective action has been taken	10-3 - 10-4
2	Extremely Unlikely	Has already occurred in the industry but correct action has been taken	10-4 - 10-5
1	Remote	Event physically possible but has never or seldom occurred over a period of 20 to 30 years for a large amount of sites (>few thousands, ex: wagons, process drums,...)	< 10-5

Category	Human Injury	Financial Cost	Work	Environmental Damage
5 Disaster	Multiple fatality	Significant financial loss (over \$1m)	Major disruption to operations	Major and unstained pollution external to the site and/or extensive loss of aquatic life
4 Very Serious	Fatality	Significany financial loss (\$500K to \$1m)	Significant operation disruption	Important pollution with reversible environmental consequences external to the site
3 Serious	Serious injury (permanent disability, amputation)	Substantial financial loss (\$50K to \$500K)	Notable operation disruption	Significant pollution external to the site
2 Substantial	Disabling injury (medical treatment)	Notable financial loss (\$5K to \$50K)	Slight operations disruption	Moderate pollution within site limits
1 Minor	First aid treatment (minor cuts, bruises or burns)	Negligible financial loss (upto \$5K)	No effect on work	(Upto) spill or release of pollutant requiring a declaration to authorities but without environmental consequences

RISK (R) = Likelihood x Impact		LIKELIHOOD (L)				
		5	4	3	2	1
IMPACT (I)	5	25	20	15	10	5
	4	20	16	12	8	4
	3	15	12	9	6	3
	2	10	8	6	4	2
	1	5	4	3	2	1

RISK (R) = Likelihood x Impact		LIKELIHOOD (L)				
		5	4	3	2	1
IMPACT (I)	5	H	H	H	M	L
	4	H	H	M	M	L
	3	H	M	M	M	L
	2	M	M	M	L	L
	1	L	L	L	L	L

CNAF Hong Kong Refuelling Limited (CNAF)

CNAF Risk Assessment Matrix

Frequency		Severity				
		A	B	C	D	E
		Catastrophic	Hazardous	Major	Minor	Negligible
5	Frequent	5A	5B	5C	5D	5E
4	Occasional	4A	4B	4C	4D	4E
3	Remote	3A	3B	3C	3D	3E
2	Improbable	2A	2B	2C	2D	2E
1	Extremely Improbable	1A	1B	1C	1D	1E

Severity = 嚴重性 : 當發生事故時，對人員可能做成的傷害

Rank	Category	Description
A	Catastrophic	- Multiple fatalities & injury - Damage to environment - Properties destroyed
B	Hazardous	- Serious injuries - Environmental issue - Properties damaged
C	Major	- Serious incident - Injury to persons
D	Minor	- Minor incident - First-aid treatment
E	Negligible	- Few consequences

Frequency = 可能性 : 以前曾經發生同類事故，並引至相關的後果

Rank	Category	Description
5	Frequent	Likely to occur frequently (occurred frequently with historical data)
4	Occasional	Likely to occur sometimes (has infrequent occurred)
3	Remote	Unlikely to occur but has potential to occur (rarely occurred)
2	Improbable	Very unlikely to occur (no historical data)
1	Extremely Improbable	Almost unlikely to occur

Risk Level = 危害級別 :

High 高 不可接受（考慮改變工序，以減低風險）

Medium 中 可容忍的風險（在合理可行情況下，應採取危害控制措施，將風險進一步減低）

Low 低 對安全不構成危險（不須採取危害控措施）

Worldwide Flight Services Fueling (Hong Kong) Limited (WFS)

Risk Exposure table

		Probability				
		Frequent 頻繁	Likely 可能	Occasional 偶然	Seldom 很少	Unlikely 不太可能
Impact	A	Extremely High	High	Medium	Low	E
	II					
	III					
	IV					

		Definition
Probability		Frequent - Occurs often. Continuously experienced. (more than 15 a year) Likely - Occurs several times. Occurs frequently. (10-15 a year) Occasional - Occurs sometime. Occurs sporadically, or several times. (5-10 a year) Seldom - Possible to occur. Remote chance of occurrence; expected to occur sometimes. (2-5 a year) Unlikely - Can assume will not occur. Possible, but improbable; occurs only very rarely. (0-2 a year)
Impact		Catastrophic - Complete service failure, death, loss of system or loss of business, violate the legal requirement. Critical - Major service degradation, severe injury, occupational illness, major system damage or receive of customer written complaint. Moderate - Minor service degradation, injury, minor occupational illness, minor system damage or receive of customer verbal complaint. Negligible - Less than minor service degradation, injury, occupational illness, or minor system damage.
Risk levels		Extremely High - Not acceptable risk. Cannot provide service and incurable even risk reducing treatment has been implemented. High - Not acceptable risk. Cannot provide the service before risk reducing treatment has been implemented. Medium - The risk can be acceptable, but for each threat the development of the risk must be monitored on a regular basis, with a following consideration whether necessary measures have to be implemented. Low - Acceptable risk. The service can be maintained with the identified threats, but the threats must be observed to discover changes that could increase the risk level.

Cathay Pacific Catering Services (CPCS)

CPCS Risk Matrix used for ranking risks

		Impact Matrix					
		FINANCIAL	DISRUPTION	STRATEGIC	REPUTATION	REGULATORY	HUMAN
1	Very Low	Up to HKD 10mn (or <0.01% of operating budget)	Disruption to non-critical systems and/or functions	Negligible impact to the vision / strategic plans	Minor negative local media coverage / no brand or image impact	Minor non-reportable breaches, no business impact	Minor injuries / First aid
2	Low	HKD 10-100m (or 0.01-1% of operating budget)	Disruption resulting in a delay (>15 min) to half or more of the daily passengers	Strategic and/or business plans require update	Extended negative local media coverage / short term local brand issues	Reportable breaches but no significant business impact	Multiple minor injuries
3	Moderate	HKD 100m-1bn (or 0.1-1% of operating budget)	Disruption up to 2 days to critical systems; or Significant part of the airline is grounded	Certain aspects of the business requires changes	Short term negative international media coverage / some brand & reputation damage	Significant breaches or significant adverse findings by the courts	Moderate injury to 1+ persons
4	High	HKD 1-10bn (or 1-10% of operating budget)	Disruption to critical systems or Significant part of the airline is grounded for 2 to 5 days	Restructure of some of the business is required	Extended negative international media coverage / significant brand & reputation damage	Major breaches or Major Prosecution or significant brand & reputation damage	Single fatality / severe permanent disability to 1+ persons
5	Very High	Above HKD 10bn (or >10% of operating budget)	Significant disruption (>5 days) to critical systems or Significant part of the airline is grounded for >5 days	Business at risk of closing down / being taken over or requires a complete restructure	Negative international media coverage causing long-term brand damage	Executives convicted or jailed; or Asset injunctions or AOC fully or temporarily suspended	Multiple fatalities / severe permanent disability (50 persons)

		Vulnerability Matrix				EXTERNAL FACTOR (%)		
		CONTROL	CRISIS	VELOCITY				
1	Very Low	No documented policies, guidelines and/or controls	Majority of controls are not effective or have not been self-assessed	Controls that are in place does not mitigate the risk	No crisis response plans are in place should the risk materialise	Crisis response plans have not been tested	Long duration between onset of risk and its impact, i.e. multiple years (1)	No external factor, risk is a result of internal factors that can be controlled (95%)
2	Low	Ad-hoc policies and controls exist but does not cover all aspects of the risk.	Over a half of controls in place to mitigate the risk are not effective	Controls in place only mitigate a minor part of the risk	Controls are in place but does not cover all aspects of the risk	Majority of Crisis response plans have not been tested or are ineffective	Risk takes up to a year (from onset) to impact the business (2)	Minimal external, Majority of the risk is Internal that can be controlled (95%)
3	Moderate	Some documented policies exist but operate in silos across the business	Half of controls in place to mitigate the risk are operating effectively	Controls in place mitigate some of the risk	Some documented response plans exist with regular reviews and updates	Crisis response plans have been tested regularly with some being ineffective	Risk takes months (from onset) to impact the business (3)	Partly external, Some of the risk is internal that can be controlled (90%)
4	High	Documented policies covering all aspects of the risk but not regularly reviewed	Majority of controls to mitigate the risk are operating effectively	Controls that are in place mitigate majority of the risk	Majority of crisis response plans are in place with regular reviews and updates	Majority of crisis response plans are tested regularly and are effective	Risk takes weeks to impact the business (4)	Mainly external, Majority of risk is external (75%)
5	Very High	Well documented end-to-end policies that are regularly updated	All controls in place to mitigate the risk are operating effectively	Controls are sufficient to mitigate all of the risk	Well documented plans should any aspect of the risk materialise	All crisis response plans are regularly tested and are adequate/effective	Rapid impact of risk from onset, i.e. within days (5)	Fully external risk that cannot be prevented using internal controls (100%)

Overall Risk ranking:
Impact score x weighted Vulnerability score

Risk Rating
Ultra
High
Moderate
Low
Insignificant

Gate Gourmet Hong Kong Limited (GG)

RISK DEFINITION AND CLASSIFICATION:

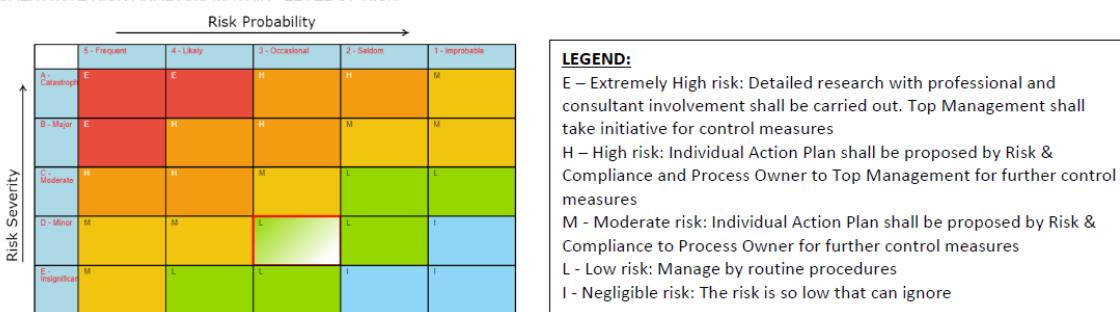
QUALITATIVE MEASURES OF RISK PROBABILITY

Level	Descriptor	Description
5	Frequent	The event is expected to occur in most circumstances
4	Likely	The event will probably occur in most circumstances
3	Occasional	The event should occur at some time
2	Seldom	The event could occur at some time
1	Improbable	The event may occur only in exceptional circumstances

QUALITATIVE MEASURES OF RISK SEVERITY

Level	Descriptor	Detail Description
E	Insignificant	No injuries, low financial loss
D	Minor	First aid treatment, on-site release immediately contained, medium financial loss
C	Moderate	Medical treatment required, on-site release contained with outside assistance, high financial loss
B	Major	Extensive injuries, loss of production capability, off-site release with no detrimental effects, major financial loss
A	Catastrophic	Death, toxic release off-site with detrimental effect, huge financial loss

QUALITATIVE RISK ANALYSIS MATRIX - LEVEL OF RISK



LSG Sky Chefs HK Ltd (LSG)

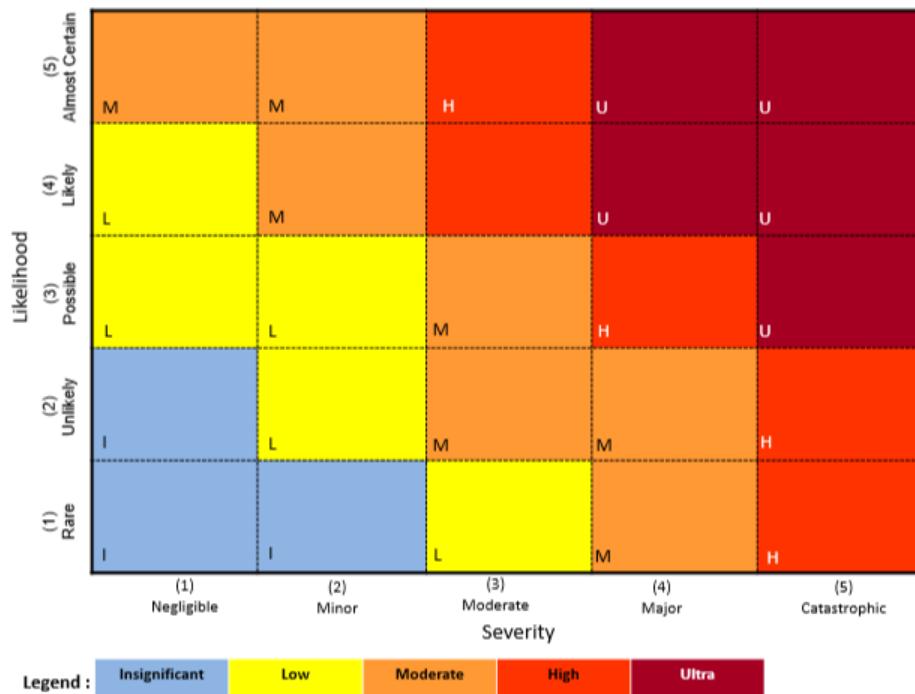
Table 3 – Risk Rating

Likelihood / Consequence	Insignificant	Minor	Moderate	Critical	Catastrophic
Practically Impossible	Small Risk	Small Risk	Small Risk	Medium Risk	Medium Risk
Unlikely	Small Risk	Medium Risk	Medium Risk	High Risk	High Risk
Possible	Small Risk	Medium Risk	High Risk	High Risk	Substantial Risk
Occasionally	Medium Risk	High Risk	High Risk	Substantial Risk	Substantial Risk
Often	Medium Risk	High Risk	Substantial Risk	Substantial Risk	Substantial Risk

China Aircraft Services Limited (CASL)

LIKELIHOOD	ALMOST CERTAIN 16	LOW 16	MODERATE 48	HIGH 144	ULTRA 432	ULTRA 1296
LIKELY 8	LOW 8	MODERATE 24	HIGH 72	ULTRA 216	ULTRA 648	
POSSIBLE 4	LOW 4	LOW 12	MODERATE 36	HIGH 108	ULTRA 324	
UNLIKELY 2	INSIGNIFICANT 2	LOW 6	LOW 18	MODERATE 54	HIGH 162	
RARE 1	INSIGNIFICANT 1	INSIGNIFICANT 3	LOW 9	MODERATE 27	HIGH 81	
	NEGLIGIBLE 1	MINOR 3	Moderate 9	Major 27	CATASTROPHIC 81	
			SEVERITY			

Hong Kong Aircraft Engineering Company Limited (HAECO)



Pan Asia Pacific Aviation Services Limited (PAPAS)

Probability of Occurrence	(5) Frequent • Likely to occur many times (has occurred frequently)	5A (High)	5B (High)	5C (Very High)	5D (Very High)	5E (Very High)
	(4) Occasional • Likely to occur sometimes (has occurred infrequently)	4A (Low)	4B (Low)	4C (High)	4D (Very High)	4E (Very High)
(3) Remote • Unlikely, but possible to occur (has occurred rarely)	3A (Very Low)	3B (Low)	3C (High)	3D (High)	3E (Very High)	
(2) Improbable • Very unlikely to occur (not known to have occurred)	2A (Very Low)	2B (Very Low)	2C (Low)	2D (High)	2E (High)	
(1) Extremely Improbable • Almost inconceivable that the event will occur	1A (Very Low)	1B (Very Low)	1C (Very Low)	1D (Low)	1E (Low)	
Risk Severity						
Very High (5C, 5D, 5E, 4D, 4E, 3E)	STOP: Unacceptable under the existing circumstances. Do not permit any operation until sufficient control measures have been implemented to reduce risk to an acceptable level					
High (5A, 5B, 4C, 3C, 3D, 2D, 2E)	Management attention and approval of risk control/mitigation actions required					
Low (4A, 4B, 3B, 2C, 1D, 1E)	Acceptable after review of the operation					
Very Low (3A, 2A, 1B, 1C)	Acceptable					

End of ORR



HKIA

BUSINESS CONTINUITY

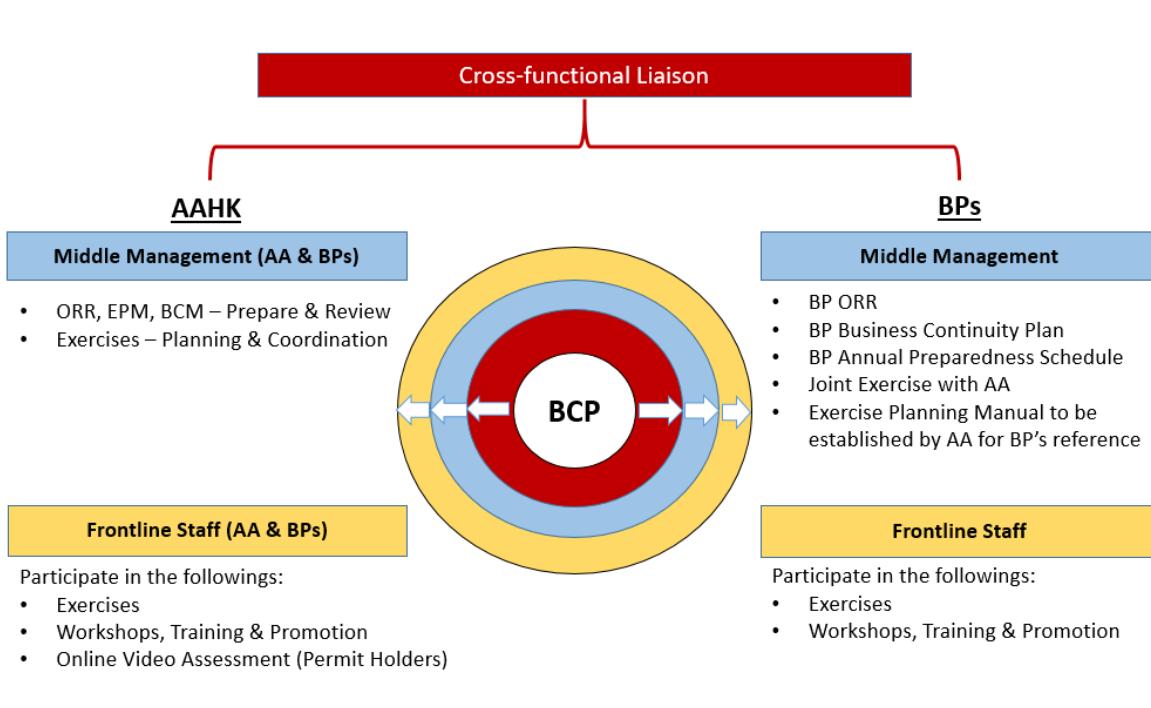
CULTURAL AWARENESS

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11.0 Overview – HKIA Business Continuity Cultural Awareness Model

- Given the dynamic risk landscape and the increasingly complex airport operation, strong airport-wide operational resilience is deemed unprecedentedly crucial to the business continuity of HKIA at times of crises and disruption. Hence AA focuses not only on its own risk management process, but also a full engagement with Business Partners (BPs), aiming to cultivate a robust BCP culture among the larger airport community.
- Having a mature of BCP culture itself, AA intends to adopt both bottom-up and top-down approach to strengthen the cultural influence to the airport community, with an ultimate goal to assist major BPs in establishing their own risk management and business continuity frameworks that are aligned with AA's BCMS and the airport-wide risk management initiatives (see figure 11.1).
- From bottom-up, AA actively engages line management of BPs for review of their operational risks and mitigations, and to include these reviewed risks in our BCMS. AA now published an Exercise Planning Manual as guidance material to share with the BPs. It is our intention to co-plan strategically important exercises with the BPs. Training, workshops and self-learning campaigns are also organized regularly for frontline airport staff in order to promote the importance of BCP and to raise the bar of overall airport risk preparedness.
- AA further adopts a collaborative approach and establishes the BCP liaison task forces comprising of management of AA and BPs. These task forces are expected to steer and promote the airport-wide business continuity initiatives and to ensure overall consistency and standards with a view to build a robust and sustainable BCP culture.

Figure 11.1 – BCP Cultural Awareness Model



11.1 Business Partner Operational Risk Register

1. As airport operations depend on the efficient interplay of all BPs, AA encourages BPs to identify and review their operational risks regularly by sharing our methodology and framework.
2. Since 2017, we start to work with BPs to identify and submit a list of their most significant ORR containing (i) core risks that are critical and commonly applied to airport operations, which already kept in AA's risk registry and are advised to be kept in that of the BPs; and (ii) risks that are specific to BP's own business and operations. Once agreed it will be included in our BCMS under Section 10 BP ORR. The BP ORR is reviewed once every three years. In between, BPs are encouraged to review and update their operational risks regularly. Section 10 contains more details on BP ORR.

11.2 Business Partner Business Continuity Plans

1. BPs are also advised to prepare respective business continuity plans to mitigate the identified BP ORR.
2. These business continuity plans are reviewed, assessed and validated regularly based on AA's business continuity plans requirement checklist (Appendix 1) so as to ensure the alignment of BPs' business continuity plans with AA's fundamental business continuity planning requirements and the tie-in with the airport-wide crisis management framework and initiatives.

11.3 Business Partner Annual Preparedness Schedule

1. To reinforce risk preparedness among the airport community, AA advises the BPs to build their Annual Preparedness Schedules which lay out the series of training, drills and exercises to be carried out annually.
2. The BP Annual Preparedness Schedule is interlinked with the BP ORR in that more emphasis is put on drills, exercises and training for operation functions assessed as high risks. With the BP Annual Preparedness Schedule in hand, BPs can put their business continuity plans to test and revise as appropriate.

11.4 Exercise Planning Manual & Exercise Co-planning with Business Partners

1. To sustain high standards in the BP-led exercises conducted at HKIA, AA has leveraged its knowledge and expertise in exercise planning and published the Exercise Planning Manual for BPs' reference. The manual provides guidelines and recommended practice on effective exercise planning, implementation and management, serving as bench-marking material for BPs when they plan and conduct their own exercises.

2. Apart from the Exercise Planning Manual, AA also intends to support strategic BP-led exercises by participating in the co-planning process in which AA's exercise planning knowledge and skills are shared. To facilitate BPs who wish to test their business continuity plans that involve joint responses by multiple parties, AA will leverage its influence to help mobilize the relevant cross-functional exercise responders to participate. This allows BPs, who alone may not have sufficient resources, to carry out cross-functional exercises to test their business continuity plans in a comprehensive manner.
3. Through the exercise co-planning process, BPs can achieve high standards of exercise planning which in turn helps raise the bar of HKIA's overall preparedness.

11.5 Training, Workshops, Self-learning and Promotion Campaigns

11.5.1 Training and Workshops

1. Training and workshops are key merits of the BCMS, implemented with a view to enhance BP's business continuity awareness and operational resilience.
2. Each year, AA delivers over 70 emergency response and business continuity training to its BPs, including airlines, ground handling agents, ramp handling operators, etc.
3. To promote a strong sense of business continuity among key responding parties and assure disruption handling readiness, AA has custom-designed the targeted training as an induction course for newly-joined frontline staff of various business partners, such as home-based carriers, ground handling agents, ramp handling operators, retailers, etc. The training covers key operational resilience concepts, as well as airport-wide emergency response and business continuity plans on various scenarios, including aircraft accident, adverse weather contingency, airport systems failure and no land link contingency, etc. The targeted training will be extended to all newly-joined airport community members gradually as far as possible.

11.5.2 Self-learning Campaign: Video Learning

1. To complement classroom training and to broadly arouse business continuity awareness among the airport community, AA has leveraged the Airport Restricted Area (ARA) permit application and renewal process and launched a mandatory business continuity awareness online test. All ARA permit applicants are required to view a business continuity video covering various emergency response and business continuity topics and complete an online assessment. Those who pass the assessment will be entitled to apply for the ARA permit.
2. For a comprehensive coverage, targeted video learning sessions with face-to-face quizzes are also arranged for non-ARA permit holders, namely the airport staff working at the non-restricted area, including cleaning, trolley management and taxi services contractor staff, etc. Topic-based emergency response and business continuity videos are shared regularly during the targeted video learning session.

11.5.3 Promotion Campaign: Publication and Games

1. To foster general awareness of business continuity within the airport community and to inform them about major HKIA disruption handling plans and response coordination, AA will issue and circulate educational publications such as posters, leaflets, videos and games to instill the spirit of BCP in an easy-to-understand manner.

11.6 Business Continuity Planning (BCP) Liaison Task Forces

1. To foster a reinforcing impact on risk preparedness and business continuity awareness, AA has adopted the collaborative approach and established the high-level BCP liaison task forces as and when major airport events arise.
2. The BCP liaison task forces, comprising of management of AA and its BPs, serves as a forum for the discussion of key airport-wide emergency response and business continuity issues.

11.6.1 Liaison Task Forces Objectives

1. The BCP liaison task force may be formed with the objectives to:
 - promote alignment and understanding of existing emergency response and business continuity measures and procedures among airport stakeholders;
 - discuss critical issues aroused from existing major airport developments or events that might have an impact to the airport-wide emergency response and business continuity measures;
 - advise on strategies for greater HKIA operational resilience; and
 - formulate a unified position on issues affecting HKIA operational resilience;so as to strengthen airport-wide preparedness and operational resilience against risks and disruptions.

11.6.2 Membership

1. Chair: Airport Authority Hong Kong
2. Members (*when appropriate per event*)

AA

- Airfield Department
- APM and Baggage Department
- Aviation Logistics Department
- Corporate Affairs Department
- Information Technology Department

- Land, Property and Aviation Franchises Department
- Landside Department
- Retail and Advertising Department
- Safety, Security and Business Continuity Department
- Technical Services Infrastructure Department
- Technical Services Systems Department
- Terminal Operations Department

Business Partners

- Aircraft Caterers
- Aviation Fuel Farm
- Base Maintenance Operators
- Cargo Terminal Operators
- Into-plane Fueling Operators
- Line Maintenance Operators
- Ramp Handling Operators

Government Bodies

- Civil Aviation Department
- Customs & Excise Department
- Department of Health
- Fire Services Department
- Hong Kong Police Force
- Immigration Department

Others

- Aviation Security Company Limited

11.6.3 Frequency

1. Members of the BCP liaison task forces meet as necessary or when major airport events arise.

Appendix 1

Business Partners' Operational Risk Register (ORR) Regular Review Template

Company: _____

Date of Review: _____ Reviewed by: _____

Risk Item: _____

Document(s) stated the operational contingency / mitigation measures against the risk item:

Latest revision number / issue date:

Risk Category	Before Mitigation Measures		After Mitigation Measures	
	Yes	No	N/A	Remarks

Plan / Document Review		Yes	No	N/A	Remarks
A. ALERTING					
A1	Are there procedures in place informing staff of the risk item?				
A2	Are the company's internal emergency alerting process and callout procedures to the incident included? (e.g. frontline / back office as appropriate)				
A3	Are key Head Office contacts included in this chart e.g. chief executives, media communications team, security team, HR team, emergency response third parties / service providers, etc.?				
A4	Do contact numbers include 24-hour accessible numbers?				
A5	Are alternate numbers available to minimise unreachable contact?				
A6	Are emergency contact numbers of business partners available?				
B. CRISIS MANAGEMENT COMMAND, CONTROL AND COORDINATION					
B1	Is there a pre-designated, HKG-based senior company executive who is directly accountable for the overall management of the incident?				
B2	Is there a pre-designated manager, the "Person-in-Charge" (PIC), who has direct accountability for the operational management of the incident?				
B3	Is there a pre-designated Command/Coordination Centre where the PIC and his/her crisis management team can work out of?				
B4	Is there a pre-designated person to activate the Command/Coordination Centre?				

Plan / Document Review		Yes	No	N/A	Remarks
B5	Is this Command/Coordination Centre located at HKIA?				
B6	Is there a pre-designated local Command/Coordination Centre Team to support the PIC in managing the incident at this Centre?				
B7	Is there appropriate documentation for this Command/Coordination Centre's communication equipment e.g. phones, fax, telex, computers, internet connections, etc.?				
B8	Is there a Back-up Command/Coordination Centre if the pre-designated Command/Coordination Centre is not available?				
B9	Is there a protocol for staff when to activate the Back-up Command/Coordination Centre?				
B10	Is there an access control procedure in place to safeguard the entry to the Command/Coordination Centre?				
B11	Are plans in place to ensure sufficient manpower to operate the Command/Coordination Centre over an extended period of time?				
B12	Is there appropriate documentation to obtain additional manpower / resources to manage the incidents?				
B13	Is there a plan to send a senior staff member to the Airport Emergency Centre (AEC) as the company's AEC Representative?				
B14	Are the roles and responsibilities of the AEC representative documented?				
B15	Are there designated staff members responsible for maintaining a log of events and action taken?				
B16	Are plans in place to communicate / coordinate with airline customers to provide for support during the incident?				
B17	Any business continuity plans and measures in place to ensure operations during disruption?				
B18	Any recovery plans after the disruptions?				
C. MEDIA CRISIS COMMUNICATIONS					
C1	Is there a written HKG Media Crisis Communications Plan for the incident?				
C2	Is there a pre-designated HKG Spokesperson and Alternates for the incident?				

Plan / Document Review		Yes	No	N/A	Remarks
C3	Is there a crisis communication training programme for company's spokespersons and other senior company staff that may need to face the media?				
C4	Is there a pre-designated HKG Media Crisis Communications Team for the incident?				
C5	Do the plans reflect integration with the media plans of the Airport Authority?				
C6	If necessary, are there procedures for coordination with the Airport Authority on the drafting and issuing of press releases?				
C7	If necessary, are there procedures documented for the coordination with the Airport Authority on the planning and carrying out of press conferences?				

D. ASSISTANCE TO STAFF

D1	Are there transportation services provided for staff to/from airport during the incident affected period?				
D2	Are there humanitarian assistance trainings provided for staff?				
D3	Are there appropriate Personal Protective Equipment available for staff in handling the incident?				
D4	In case of prolonged working hours during incidents, is there a staff resting area provided?				

E. REVIEW AND TEST

E1	When was this risk item last assessed?				Date:
E2	What is the frequency for re-assessment of the risk item?				
E3	Any trainings provided to all responding staff members on this risk?				
E4	Any drills and exercises arranged for testing the relevant plans?				
E5	Are there documentation on the objectives, scope, participants, gathering and circulation of lessons learned from each of the training, drill and exercise?				

End of Business Continuity Cultural Awareness



BUSINESS CONTINUITY PLANS

(BC Plans)

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12.0 List of Business Continuity Plans

Chapter		BCP no. & Category	Responsible Department
A	Aircraft	A1. Aircraft Loading Bridge	AD
		A2. Aircraft Docking Guidance System	AD
		A3. Airfield Ground Lighting System	AD
		A4. Airfield Pavement	AD
		A5. Fixed Ground Power	AD
		A6. Flight Rescheduling Control System	AD
		A7. Industrial Action Plan	AD
		A8. Aviation Fuel Services Disruption Plan	AD, LPAF
		A9. Aircraft Catering Services	LPAF
B	Passenger	B1. Automated People Mover	ABD
		B2. Crowd Management	TOD
		B3. Lifts & Escalators	TOD, LD, TSS
		B4. Major Airport Disruption Preparedness Plan	SSBC
		B5. Terminal Evacuation & Recovery	TOD, LD, AD
C	Baggage & Cargo	C1. Baggage Handling System	ABD
		C2. Cargo Operations Disruption Contingency Plan	ALD
D	Surface Transport	D1. No Land Link Plan	LD, TOD
		D2. Traffic Control & Surveillance System, Car Park Vehicle Access Control System	LD
		D3. Contingency Staff Transport	Administration
E	Systems	E1. Emergency Power Supply	TSI
		E2. Flight Information Display System	ABD, TOD
		E3. General Building Management System (GBMS) & Supervisory Control and Data Acquisition (SCADA)	TSI
		E4. Power Distribution System	TSI
		E5. Seawater Provision, Chiller & Mechanical Building Management System	TSI
		E6. Trunked Mobile Radio	TSS
		E7. Water & Sewage Systems	TSI
F	Security	F1. Access Control System	SSBC
		F2. Elevated Security Threat Response	SSBC
		F3. Landside Security	SSBC
		F4. Suspected CBRN Contaminated Arrival Aircraft Management Procedures	SSBC
		F5. e-Security Gate and Assisted Channel	SSBC
G	Public Health	G1. Public Health & Pandemics	SSBC
H	Natural Disaster	H1. HKIA Post-Incident Recovery Checklist	SSBC
		H2. Prolonged Red Lightning Warning	AD
		H3. Tsunami Plan	SSBC
		H4. Typhoon Response	SSBC
I	Others	I1. HKIA Office Contingency Plan	Administration
		I2. Major Event Risk Assessment and Crowd Management Plan	SSBC

End of BC Plans

Business Continuity Manual

Business Continuity Plan: A1

Aircraft Loading Bridge

		Signature	Revision	Effective Date
Updated By	Assistant General Manager, AD	 Albert Ho		
Reviewed By	Assistant General Manager BCP, SSBC	 Emily Chu	32	Jun 2023
Approved By	General Manager SSBC	 David Jea		

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BCP – A1. Aircraft Loading Bridge Table of Contents

<u>ITEM</u>	<u>SUBJECT MATTER</u>	
A	System Description	A1. 5
B	Physical System Risk	A1. 5
C	Contingency Procedures for Airbridge Mal-functions	A1. 6
D	Contingency Procedures during the passage of Tropical Cyclones	A1. 7
E	Interface with Other Operational Organizations during Contingency	A1.11
F	Drill Plan	A1.11

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A. System Description

1.0 Introduction

- 1.1 Airbridges are installed on all the frontal stands of Passenger Apron to facilitate passenger boarding and disembarkation.
- 1.2 Most parking stands at T1 and T1M are equipped with two airbridges, the inner one serving the front (L1) door and the outer one serving the mid (L2) door of wide-bodied aircraft.
- 1.3 Stands N5, N64, D212 and D216 are equipped with three airbridges which specially cater for A380 operation.
- 1.4 All parking stands of the T1S and stand N10 are equipped with one airbridge.
- 1.5 All airbridges units are apron drive capable of lateral movements.
- 1.6 Narrow-bodied aircraft and a few wide-bodied aircraft parking at stand equipped with two airbridges are served by the outer airbridge at the L1 door.

B Physical System Risk

Risk	Description	Mitigation
Trespassers	Unauthorized operation of the equipment	<ul style="list-style-type: none">• Equipment located at apron of airside, access to the equipment rely on airport security control• Loading Bridge equipped with key switch to prevent unauthorized operation
Fire	Damage of equipment due to fire	<ul style="list-style-type: none">• Loading Bridge design accordingly to NFPA 415 fire protection requirement
Water	Damage of equipment due to water ingress	<ul style="list-style-type: none">• Loading Bridge design to be water proof with drain pan above control console.

C Contingency Planning for Airbridge Mal-functions

- 1.0 Failure identified during aircraft pre-arrival check
 - 1.1 The Airbridge Operator should immediately inform IAC-ACC which will contact Fault Response Team (FRT) for follow-up.
 - 1.2 IAC-ACC is to notify Airfield Duty Manager to assess impact to passenger disembarkation.
 - 1.3 If the defect could not be rectified in time to facilitate passenger disembarkation for the incoming aircraft, the Airfield Duty Manager will coordinate with IAC-ACC and airline (or handling agent) to determine if relocation of the aircraft to an adjacent parking stand is feasible.
 - 1.4 If relocation is not feasible, follow procedures contained in Para. 2.4 to 2.11 below.
- 2.0 Failure occurs during airbridge docking with an arrival aircraft
 - 2.1 The Airbridge Operator should immediately inform IAC-ACC which will contact FRT for follow-up
 - 2.2 The Operation Officer assigned for the aircraft parking should also inform IAC-ACC and Airfield Duty Manager.
 - 2.3 Airfield Duty Manager will assess the impact on passenger disembarkation.
 - 2.4 IAC-ACC will liaise with RHO for deployment of passenger steps.
 - 2.5 Airfield Duty Manager will coordinate with the airline (or handling agent) to decide whether arriving passengers will be transferred by buses to the APV arrival channel or directly from the parking stand to the passenger terminal by using the fire exit stairs on the fixed link bridge.
 - 2.6 If it was decided to make use of APV arrival channel, the Airfield Duty Manager will coordinate with the airline or handling agent to determine the number of passenger buses required.
 - 2.7 IAC-ACC will deploy passenger buses if APV arrival channel is to be used.
 - 2.8 Airfield Duty Manager will coordinate with Airline (or Handling Agent) and RHO on the aircraft doors to be used for passengers disembarkation by passenger buses.
 - 2.9 Airline (or handling agent) should ensure sufficient staff are deployed on the parking stand to guide the passengers.
 - 2.10 Airfield Duty Manager should ensure that other aircraft ground activities on the starboard side will be suspended until passenger disembarkation (or embarkation) is completed

- 2.11 Airline (or handling agent) should arrange wheelchair-bound passenger to disembark (or embark) by using the disabled truck arranged by IAC-ACC.
 - 2.12 If the aircraft is a quick turnaround flight and the airbridge defect could not be rectified in time to facilitate departure, Airfield Duty Manager will coordinate with the airline (or handling agent) to decide whether departure passengers will make use of the fire exit stairs on the fixed link bridge to board the aircraft via passenger steps, or to reposition the aircraft to another available parking stand for departure.
 - 2.13 If embarkation of the departure passengers is to be via the fire exit stairs on the fixed link bridge and the passenger steps, follow procedures contained in Para 2.9 to 2.11.
- 3.0 Failure occurs during airbridge docking with an aircraft towed into the parking stand
- 3.1 The Airbridge Operator should immediately inform IAC-ACC which will contact FRT for follow-up.
 - 3.2 If the defect could not be rectified in time to facilitate aircraft departure, IAC-ACC will liaise with the airline or handling agent to relocate the aircraft to an adjacent parking stand with serviceable airbridges.
- 4.0 Airbridge unable to be retracted for aircraft departure
- 4.1 The Airbridge Operator or the RHO Supervisor should immediately inform IAC-ACC which will contact FRT for follow-up.
 - 4.2 IAC-ACC will then report the fault to Airfield Duty Manager.
 - 4.3 Airfield Duty Manager will ascertain in conjunction with TSI whether the fault can be rectified immediately.
 - 4.4 If the airbridge cannot be rectified in time without delaying aircraft departure, the airbridge will be retracted manually by TSI.

D Contingency Procedures during the passage of Tropical Cyclones

- 1.0 General Information
1. In accordance with the recommendation by the manufacturer, airbridges should be withdrawn from operational use when prevailing wind reaches 40 knots (75 km/h) and be tied-down when prevailing wind reaches 77 knots (140 km/h).
 2. Under the influence of certain strong wind conditions, aircraft parking at the frontal stands, in particular to those carrying only light load, have a

tendency of jerky movements both vertically and laterally. This may cause displacement of the aircraft from the parked position, resulting in damage to both the aircraft and the adjoining airbridge.

3. When wind speed reaches 25 knots (or 45 km/h),

Passenger Terminal

- (a) for all frontal stands other than N5, N64, D212 and D216 and serving aircraft up to Code E, the inner airbridge will be retracted from the aircraft door. Passenger embarkation or disembarkation shall be conducted using the outer airbridge.
- (b) for frontal stands S23, N60, N62 and N66 serving an A380 aircraft, the inner airbridge will be retracted from the aircraft door. Passenger embarkation or disembarkation shall be conducted using the outer airbridge at main deck only.
- (c) for frontal stands N5, N64, D212 and D216 serving aircraft up to Code E (the inner airbridge is normally not in use), the middle airbridge will be retracted from the aircraft door. Passenger embarkation or disembarkation shall be conducted using the outer airbridge.
- (d) for frontal stands N5, N64, D212 and D216 serving an A380 aircraft, the middle airbridge will be retracted from the aircraft door. Passenger embarkation or disembarkation shall be conducted using the inner and outer airbridges at main deck only.

4. When wind reaches 35 knots (or 65 km/h),

4.1 Passenger Terminal

- (a) for all frontal stands other than N5, N64, D212 and D216 and serving aircrafts up to Code E, the outer airbridge will also be retracted from the aircraft door. However, upon request from the airline, the outer airbridge may still be used for passenger embarkation or disembarkation, cabin services, and maintenance services inside the cabin in the presence of an airline staff or representative at the aircraft door to monitor the condition of aircraft, together with an airbridge operator to monitor the operation of airbridge throughout the period when it is docked to the aircraft.

- (b) for frontal stands S23, N60, N62 and N66 serving an A380 aircraft, the outer airbridge will also be retracted from the aircraft door. However, the outer airbridge may still be used at the main deck for passenger embarkation or disembarkation, cabin services, and maintenance services inside the cabin under the conditions as stated in (a).
- (c) for frontal stands N5, N64, D212 and D216 serving aircraft up to Code E, the outer airbridge will also be retracted from the aircraft door. However, the outer airbridge may still be used for passenger embarkation or disembarkation, cabin services, and maintenance services inside the cabin under the conditions as stated in (a).
- (d) for frontal stands N5, N64, D212 and D216 serving A380 aircraft, the inner and outer airbridges will also be retracted from the aircraft door. However, the outer airbridge may still be used for passenger embarkation or disembarkation, cabin services, and maintenance services inside the cabin under the conditions as stated in (a).

4.2. T1 Satellite Concourse (T1S) and stand N10

Airbridge will be retracted from the aircraft. However, upon request from the airline, the airbridge may still be used for passenger embarkation or disembarkation, cabin services, and maintenance services inside the cabin in the presence of an airline staff or representative at the aircraft door to monitor the condition of aircraft, together with an airbridge operator to monitor the operation of the airbridge throughout the period when it is docked to the aircraft.

The airbridge must be retracted from the aircraft if the condition became hazardous, or as soon as passenger embarkation or disembarkation, cabin services and maintenance services inside the cabin are completed.

4.3. The table below summarizes the limitation on airbridge operation under strong wind condition:

		Passenger Terminal				T1S	
Stand		All frontal stands ¹ other than N5	S23, N60, N62 & N66 ²	N5, N64, D212 & D216			
Aircraft Type Served		Up to Code E	Code F	Up to Code E ³	Code F		
When wind \geq 45 km/h (25 knots)	Airbridge to be retracted	Inner	Inner	Middle		Not Applicable	
	Airbridge allowed for pax embarkation or disembarkation	Outer	Outer at main deck only	Outer	Inner & Outer at Main deck only		
When wind \geq 65 km/h (35 knots)	Airbridge to be retracted	Both Inner & Outer	Both Inner & Outer	Middle & Outer	Inner, Middle & Outer	Airbridge under monitoring by airline staff & airbridge operator	
	Airbridge allowed for pax embarkation or disembarkation	Outer under monitoring by airline staff & airbridge operator	Outer at main deck under monitoring by airline staff & airbridge operator	Outer under monitoring by airline staff & airbridge operator	Outer at main deck under monitoring by airline staff & airbridge operator		
When wind \geq 75 km/h (40 knots)		All airbridges should be retracted					
When wind \geq 140 km/h (77 knots)		All airbridges should be tied down					

Note¹: All frontal stands include the new addition of T1 Midfield Concourse D201-D219

Note²: Operation of S23, N60 & N66 when serving aircrafts up to Code E shall follow the instructions under "All frontal stands other than N5"

Note³: The Inner airbridge is not in use when serving aircrafts up to Code E

E. Interface with Other Operational Organizations during Contingency

1. Ramp Handling Franchisees;
2. Airlines;
3. Handling Agents;
4. Line Maintenance Franchisees;
5. AA TSI

F. Drill Plan

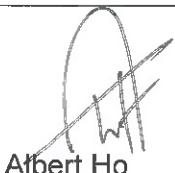
Drill by RHOs and TSI on manual retract and tie-down of airbridge is conducted on annual basis before typhoon season.

End of BCP – A1

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Business Continuity Manual

Business Continuity Plan: A2 Aircraft Docking Guidance System

		Signature	Revision	Effective Date
Updated By	Assistant General Manager AD	 Albert Ho		
Reviewed By	Assistant General Manager BCP, SSBC	 Emily Chu	34	Nov 2023
Approved By	General Manager SSBC	 David Jea		

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BCP – A2. Aircraft Docking Guidance System Table of Contents

<u>ITEM</u>	<u>SUBJECT MATTER</u>	
A	System Description	A2. 5
B	Contingency Procedures for Aircraft Docking Guidance System	A2. 6

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A. System Description

1.0 Introduction

- 1.1 The Aircraft Docking Guidance System (ADGS) consist of displays, lasers scanning units and operator control panels. It serves to track an aircraft's position relative to the parking stand.
- 1.2 A signal will be displayed to guide the pilot for left and right steering as well as stop position when approaching parking stand.
- 1.3 The ADGS units are installed for the main centerline of all parking stands in the Passenger Apron and West Cargo Apron.

B. Contingency Procedures for Aircraft Docking Guidance System

- 1.0 Criteria for activating contingency plan
 - 1.1 Upon detecting any irregularity on the calibration of the Aircraft Docking Guidance System (ADGS) units during aircraft pre-arrival inspection.
 - 1.2 Malfunction or irregularities of (ADGS) operation occurring during aircraft docking.
- 2.0 Services and manpower involved
 - 2.1 Marshalling shall be provided to the incoming aircraft by a qualified AA Aircraft Marshaller locally or remotely.
 - 2.2 Marshalling wands and pads are carried by the local Operation Officers as a routine standby.
 - 2.3 Line Maintenance Operator (LMO) mechanic shall provide stop signal or press ADGS emergency stop button if irregularity found during aircraft docking under Remote Marshalling Operation.
- 3.0 Contingency Procedures
 - 3.1 When irregularities are detected during the aircraft pre-arrival inspection
 - i. The Operation Officer should immediately report the ADGS fault to IAC-ACC and Airfield Duty Manager. IAC-ACC should liaise with Ground Movement Control (GMC) to inform the pilot that aircraft docking by ADGS is unavailable and the pilot is to follow marshaller signals.
 - ii. IAC-ACC should report the fault to FRT
 - iii. The Operation Officer as a qualified Aircraft Marshaller, should provide marshalling signal to the incoming aircraft.
 - 3.2 When the irregularities are detected during the aircraft docking
 - i. The local or remote Operation Officer should immediately activate the Emergency Stop button located at the ADGS control panel or ADGS workstation in IAC and inform IAC-ACC and Airfield Duty Manager.
 - ii. IAC-ACC should report the fault to FRT
 - iii. The Operation Officer as a qualified Airport Marshaller, should then provide marshalling signal to the incoming aircraft.
 - iv. The Airfield Duty Manager is responsible to ensure that the ADGS unit is withdrawn from use if malfunction has occurred.

- 3.3 Airfield Duty Manager is responsible to coordinate with FRT to identify the cause of the fault and to arrange for urgent repair. If the repair requires working on the software of the ADGS unit and breaking of the seal on the ADGS control panel, the unit must be closely monitored during the next aircraft docking.
 - 3.4 When assigning aircraft parking duties for a parking stand where the ADGS unit has been withdrawn from operation, IAC-ACC should make sure that a qualified Airfield Marshaller is assigned who should be reminded to provide marshalling service to the arriving aircraft and to inform ATC-GMC to alert Pilot of arriving aircraft to follow marshalling signals.
- 4.0 Interface with other operational organizations during contingency
- 4.1 ATC – GMC
 - 4.2 TSI
- 5.0 Data preservation procedures

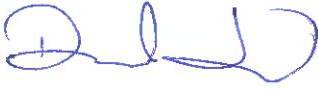
Electronic data on the performance of the ADGS unit for each aircraft parking is registered in the system server. However, the data is only stored until the next parking. Therefore, in order to retain the data of a failed parking to facilitate fault investigation, the ADGS shall not be used until the necessary data is secured by TSI

End of BCP – A2

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Business Continuity Manual

Business Continuity Plan: A3 Airfield Ground Lighting System

		Signature	Revision	Effective Date
Updated By	Assistant General Manager AD	 Albert Ho		
Reviewed By	Senior Manager BCP, SSBC	 Emily Chu	31	Nov 2022
Approved By	General Manager SSBC	 David Jea		

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BCP – A3. Airfield Ground Lighting System Table of Contents

<u>ITEM</u>	<u>SUBJECT MATTER</u>	
A	System Description	A3.5
B	Contingency Procedures for Emergency Power Supply	A3.6

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A. System Description

1.0 Introduction

- 1.1 Airfield Ground Lighting (AGL) system provides navigation to pilot in the aerodrome during aircraft take off, approach for landing and taxing. The obligations of the Authority are maintaining our AGL to comply with International Civil Aviation Organization's (ICAO) Standard and to meet operational requirement of Civil Aviation Department (CAD) of HKSAR Government.
- 1.2 The Serviceability of AGL is divided into Category (Cat.) I, II and III respectively (please refer to ICAO Standard, Annex 14 for definition and operational requirement). Under Cat. I operation, the power supply of AGL system is provided by CLP Power main power as its main source and is backed up by localized diesel generators. While under Cat. II or III operation, the power configuration is reversed with generators as main power source and CLP Power as backup to meet the system transition time.
- 1.3 The major components of AGL system include Control and Monitoring System (CMS), power distribution network, vaults and its field circuits. This manual will cover the procedure during breakdown of those major components mentioned.

2.0 Control and Monitoring System (CMS)

- 2.1 The AGL CMS are used to facilitate the operators at Air-Traffic Control Tower (ATCX) to remote operate the on/off and intensity of airfield ground lights. Operation commands are pressed on the remote workstations and corresponding signals are sent through the Dedicated Network (DN) to the control systems at vaults.
- 2.2 The entire breakdown of CMS would cause affect the remote operation and monitoring capabilities via workstations at ATCX. The operation modes of all AGL facilities would remain at last state. Manual Control Backup System (MBCS) at ATCX can be utilized to remote operate airfield ground lights with certain operation limitations. Further, localized manual operation of hardware facilities at vaults would be required depending on the contingency operation requirement from controllers at ATCX.

3.0 Power Distribution Network

- 3.1 The main power source for AGL system at each vault is supplied by CLP Power via Airfield 11kV infrastructure power network. The AGL system is also locally backed-up by dual generators at each vault with 100% redundancy, that is, any one generator would be sufficient to cater for entire power supply demand at each vault.

4.0 Vaults

- 4.1 The main AGL facilities are installed in six separate vaults, two for North Runway, two for Centre Runway and two for South Runway. The power circuits, supplying power to airfield ground lights at field, are originating from these respective six vaults. The AGL power circuits of Runway Centre Lights and Runway Edge Lights are designed to be inter-leaved with supplied from two vaults to minimize the impact of runway operation in the event of failure of single vault.
- 4.2 The two vaults for Centre Runway are maintained to the operation of associated taxiways and taxilanes while Centre Runway has been closed for reconfiguration.

B. Contingency Procedures for Airfield Ground Lighting System

1.0 Criteria for activating contingency plan

- 1.1 Whenever breakdown of following facilities of AGL system, this contingency plan would be activated.
 - i. CMS;
 - ii. Power Distribution Network; or
 - iii. Vaults

2.0 Services and manpower involved

- 2.1 All works execution involving electrical installation shall be undertaken by appropriate Registered Electrical Worker (REW) according to procedures.
- 2.2 IAC-ACC, ATC Controllers of Civil Aviation Department (CAD), FRT members and AGL maintenance contractor will be involved.

3.0 Contingency Procedures for CMS breakdown

- 3.1 Check if irregularities below are detected in CMS, the procedures would be activated
 - i. Continuous audio warning buzzer may be generated from the CMS workstation; or
 - ii. In the AGL CMS workstations, many AGL facilities / components are highlighted with yellow flashing indication or system malfunction or unresponsive to any remote operation.
- 3.2 Follow up procedures for reporting among relevant parties
 - i. FRT and IAC-ACC shall be notified and report latest status.
 - ii. IAC-ACC shall notify CAD ATC controllers immediately if fault report is not initiated from them.

- 3.3 When the fault is reported, FRT shall respond and seek for the cause of the fault, and estimate the duration of recovery time.
- 3.4 ATC controller would determine if Manual Back-up Control System (MBCS) is to be activated. Restricted operation mode of airfield ground lights could be maintained.
- 3.5 FRT shall coordinate with ATC controller and IAC-ACC for the recovery program and execution of repair works
 - i. FRT shall organize the recovery program with maintenance contractor and coordinate with ATC controller for urgent maintenance window.
 - ii. FRT shall report to ATC Controller and IAC-ACC for periodic update on repair works and the updated recovery time.
 - iii. FRT shall notify ATC controller and IAC-ACC after the system is restored to normal operation.

4.0 Contingency Procedures for Power Distribution Network breakdown

- 4.1 Check if irregularities are detected according to Airfield SCADA or CMS, the procedures would be activated
 - i. Continuous audio warning buzzer may be generated from the CMS workstation or Airfield SCADA workstation.
 - ii. In the Airfield SCADA workstation, the switching stations in Airfield 11kV infrastructure network are highlighted with red flashing indication.
- 4.2 Follow up procedure for reporting among relevant parties
 - i. FRT and IAC-ACC shall be notified and report latest status.
 - ii. IAC-ACC shall notify CAD ATC controllers immediately if fault report is not initiated from them.
- 4.3 FRT shall check the affected electrical network on site to confirm the situation of supply source. CLP Power shall be contacted if power supply from CLP Power is found suspended.
- 4.4 If the power supply is found healthy, FRT shall carry out AGL system check on site to ensure the power supply is maintained in vaults and subsequently to airfield ground lights in the field.
 - i. FRT shall report the updated situation to ATC controller and IAC-ACC.
 - ii. FRT shall carry out periodic checking on related power facilities on site until the remote monitoring system is recovered.

- 4.5 If the power supply is confirmed suspended on site, FRT shall check related operational status of AGL back-up generators and confirm the proper activation. The normal operation of any one generator would be sufficient to cater for entire power supply demand at each vault and the normal functionality of AGL system.
- i. FRT shall report to ATC controller on the status of AGL power system and coordinate with ATC controller on the operational status for AGL system.
 - ii. FRT shall organize the recovery program with maintenance contractor and coordinate with ATC controller and IAC-ACC for urgent maintenance window.
 - iii. FRT shall report to ATC Controller and IAC-ACC for periodic update on repair works and the updated recovery time.
 - iv. FRT shall notify ATC controller and IAC-ACC after the power system is restored.
 - v. FRT shall coordinate with ATC controller for the restoration of power supply of AGL system to normal main power supply.

5.0 Contingency Procedures for Vault breakdown

- 5.1 Check if irregularities below are detected in CMS, the procedures would be activated
- i. Continuous audio warning buzzer may be generated from the CMS workstation; or
 - ii. In the AGL CMS workstations, many AGL facilities / components associated with one or more vaults are highlighted with yellow flashing indication.
- 5.2 Follow up procedures for reporting among relevant parties
- i. FRT and IAC-ACC shall be notified and report latest status.
 - ii. IAC-ACC shall notify CAD ATC controllers immediately if fault report is not initiated from them.
- 5.3 When the fault is reported, FRT shall respond and seek for the cause of the fault, check on status at affected vault and estimate the duration of recovery time.
- 5.4 If the damage to the vault is significant and the recovery is not expected in foreseeable short time, FRT shall report to ATC controller and IAC-ACC. The ATC controller shall assess the operation capability of the affected runway and taxiway facilities and arrange the necessary operation contingency.

- 5.5 FRT shall coordinate with ATC controller and IAC-ACC for the recovery program and execution of repair works
- i. FRT shall organize the recovery program with maintenance contractor and coordinate with ATC controller for urgent maintenance window.
 - ii. FRT shall report to ATC Controller and IAC-ACC for periodic update on repair works and the updated recovery time.
 - iii. FRT shall notify ATC controller and IAC-ACC after the system is restored to normal operation.

6.0 Interface with other operational organizations during contingency

- 6.1 CAD - ATC
- 6.2 IAC - ACC
- 6.3 TSI - FRT

End of BCP – A3

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Business Continuity Manual

Business Continuity Plan: A4

Airfield Pavement

		Signature	Revision	Effective Date
Updated By	Assistant General Manager AD	 Albert Ho		
Reviewed By	Assistant General Manager BCP, SSBC	 Emily Chu	32	Jun 2023
Approved By	General Manager SSBC	 David Jea		

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BCP – A4. Airfield Runway System Table of Contents

<u>ITEM</u>	<u>SUBJECT MATTER</u>	<u>PAGE</u>
A	Introduction	A4.5
B	Emergency Handling Guideline for Repair of Airfield Pavement	A4.5
C	Contingency Manpower for Emergency Repair of Airfield Pavement	A4.6
D	Type and Capacity for Emergency Repair Works	A4.7
E	Flow Chart for Fault Handling for Airfield Pavement	A4.8

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A. Introduction

1. Physical Characteristics of Runways
 - i. Designation - 07R/25L and 07L/25R
 - ii. Width - 60m
 - iii. Shoulders - 7.5m either side
 - iv. Length - 3800m
 - v. Bearing - 70°54'/250°54'
 - vi. Surfacing - Asphalt. Central 54m is grooved (6mm X 6mm) at 32 mm spacing for a length of 3400m
 - vii. RESA - 240m x 150m surfaced with asphalt
 - viii. Runway PCN - PCN72/F/B/W/T

B. Emergency Handling Guidelines for Repair of Airfield Pavement

1. Purpose

These guidelines give the recommended steps to be followed in the emergency repair of the airfield pavement.

2. Scope

These guidelines apply to emergency repairs carried out on the airfield as identified through a fault call.

3. Procedures for Emergency Repair of Airfield Pavement

- i. On receiving a fault report regarding airfield pavement, the FRT staff shall coordinate with the Assistant Manager, Airfield and his/her representative to carry out joint inspection within 15 minutes to identify the severity and urgency of the fault.
- ii. FRT staff shall identify the severity and urgency of the fault and prioritizes with Assistant Manager, Airfield any necessary temporary or permanent repair works.
- iii. Should the conditions have any potential risk in affecting the safety of aircraft operations, FRT team shall declare it as an emergency situation and temporary/permanent repairs to restore the pavement to a safe and serviceable condition shall be initiated immediately.
- iv. In an emergency situation, the FRT staff shall take the following actions:
 - a. Inform the Manager, Airfield Maintenance immediately, assess the condition of the fault and decide the method/material for the temporary repair and estimate the time required.

- b. Inform the Assistant Manager, Airfield, ACC & Airport Duty Manager and coordinate with them and ATC for a temporary closure of the affected portion of airfield pavement.
- c. Mobilize the Maintenance Contractor to get ready on site all necessary plants and materials in a suitable holding area nearby.
- d. Contact the Airfield E&M team if removal/blanking off of AGL is necessary during the works.
- e. Upon receipt of approval from Assistant Manager, Airfield and ATC, instruct the repair crews to enter the runway and start the repair work.
- f. If necessary, barricade the closed portion of airfield pavement with marker boards and red warning lights.
- g. Airfield E&M team remove/blank off the AGL if necessary during the works.
- h. Supervise the works by the Maintenance Contractor to make sure the quality of works within acceptable standards and completed within the agreed time.
- i. After completion of the temporary repair work, conduct an inspection to make sure all material laid had set and the area is clean and suitable for aircraft operation.
- j. Arrange the Maintenance Contractor to remove all the marker boards and vacate the site.
- k. Inform the Assistant Manager, Airfield that the works are completed and hand back the site to ATC.
- l. Inform the Airfield Maintenance team of TSI to issue a retrospective Works Order to cover the verbal instruction when necessary.

C. Contingency Manpower for Emergency Repair of Airfield Pavement

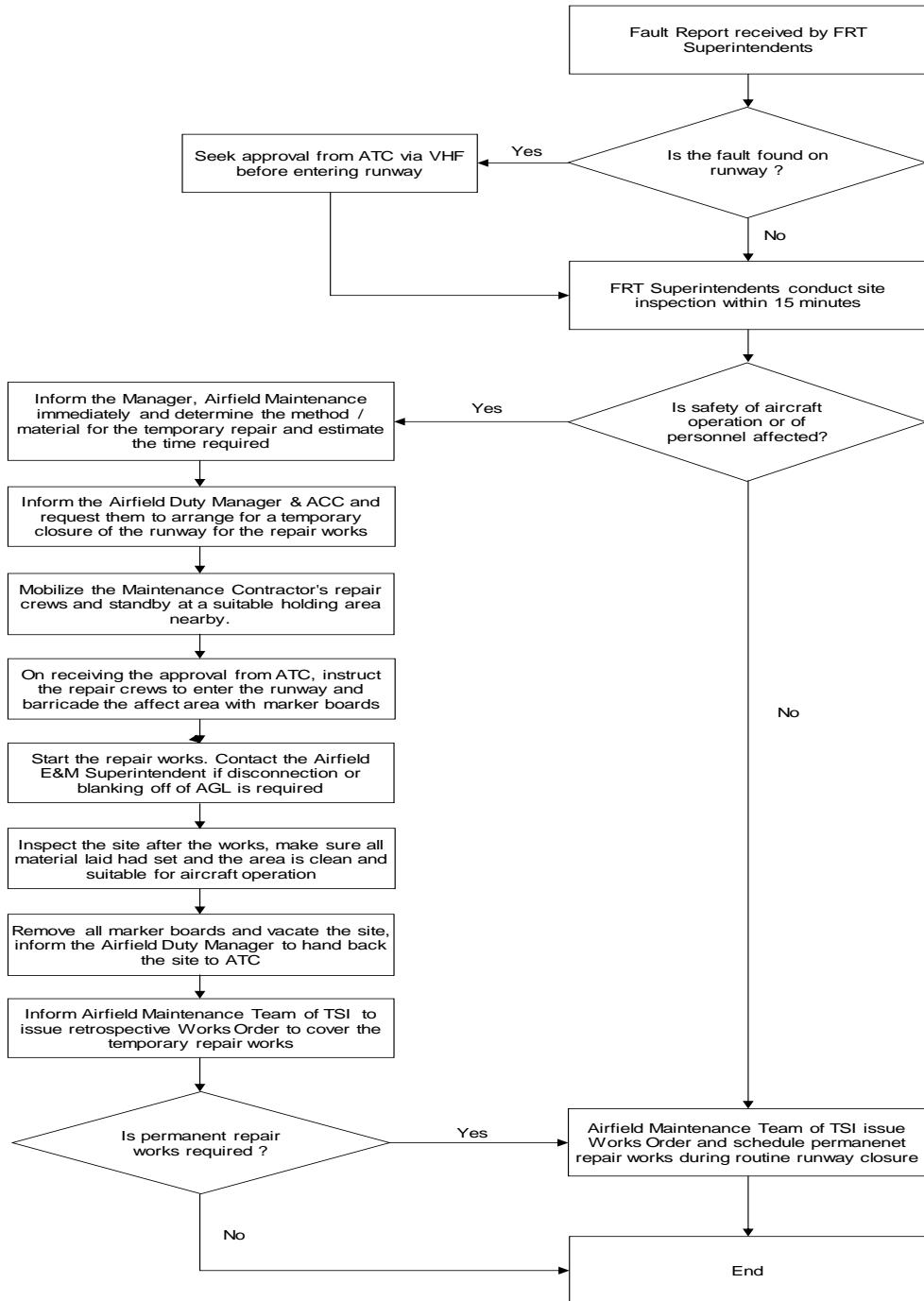
- 1. At least one FRT member will response to any emergency call within 15 minutes at all times. The staff is trained and able to make judgment of the severity of the defects and initiate necessary emergency repairs.
- 2. The Manager, Airfield Maintenance or his delegate, will also response to emergency call within 15 minutes during office hours and can be contacted by mobile phone during the non-office hours.
- 3. The Airfield Maintenance team of TSI has an On Site Service Team at all times, comprising 1 supervisor and 2 skilled workers for day team (07:00-1900) and 1 supervisor and 3 skilled workers for night team (19:00-07:00) respectively equipped with appropriate tools and equipment.
- 4. They will respond to emergency call within 15 minutes and carry out temporary repair works.
- 5. Notwithstanding the provision of emergency core team, there are normally 15 contractor staffs to carry out planned maintenance and scheduled repair works during the day/night shift.
- 6. Additional workers, plants and equipment will be mobilized from outside as required.

D. Type and Capacity for Emergency Repair Works

Type of Defects	Repair Method	Time Required for Temporary Repair	Capacity
Joint open up or minor cracks	Temporary seal up with cold-pour sealant, e.g. Roadware Flecible Cement II. Schedule permanent patch repair during NOTAM/night time	20 minutes include setting time	Scheduled NOTAM: Permanent Repair Capacity: 350 m ² & repair location not exceeding 2 nos
Pot holes (area not exceeding 300mm X 300mm)	Temporary repair by instant filling material (Fine Cold Asphalt or Roadware Flexible Cement II) Schedule permanent patch repair during NOTAM/night time	75 minutes including setting time	Scheduled NOTAM: Permanent Repair Capacity: 350 m ² & repair location not exceeding 2 nos
Breaking up of pavement surface as a result of major heaving / slippage	Close Runway and carry out emergency Temporary patch repair using hot mix Polybilt (if Polybilt asphalt is not available in short time, Highway mix may be used). Schedule permanent patch repair during NOTAM/night time	Normal Working Days: 4 hrs. (Assume worst scenario when alerted at night.) Chinese New year: 10 hrs, (Note: batching plant under scheduled annual over haul work)	Temporary Closure: 70m ² per hour plus 3 hour for setting up & curing time after completion. Scheduled NOTAM: Permanent Repair Capacity: 350 m ² & repair location not exceeding 2 nos.

- In case of rain or inclement weather, the FRT Superintendents, the Manager, Airfield Maintenance or his delegate will consider the situation and determine if setting up of an air tent is necessary for the temporary repair works.

E. Flow Chart for Fault Handling for Airfield Pavement (TSG/M/103-001)



End of BCP – A4

Business Continuity Manual

Business Continuity Plan: A5

Fixed Ground Power

		Signature	Revision	Effective Date
Updated By	Assistant General Manager AD	 Albert Ho		
Reviewed By	Senior Manager BCP, SSBC	 Emily Chu	29	Dec 2021
Approved By	General Manager SSBC	 David Jea		

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BCP – A5. Fixed Ground Power Table of Contents

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B	Physical System Risk	A5.5
C	Contingency Procedures for Fixed Ground Power	A5.6
D	Contingency Procedures during the Tropical Cyclones	A5.7
E	Interface with Other Operational Organizations during Contingency	A5.8

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A. System Description

1.0 Introduction

- 1.1 Fixed Ground Power are installed on all the frontal and remote stands of passenger apron and cargo stands in cargo apron to facilitate aircraft to use ground power after docking.
- 1.2 Most frontal parking stands at T1 and T1M are equipped with two nos. of FGP power plug outlet with rating 90kVA FGP power plug each at inner airbridge and outer airbridge.
- 1.3 Among the frontal stands at T1 and T1M, those designed for A380 parking are supplied with additional 90kVA plug(s) which is either bridge-mount type or pit type to cater for A380 operation. The typical A380 airbridges are equipped with two no. of FGP power plug outlet each with rating 90kVA.
- 1.4 All parking stands of the T1S are equipped with one no. of FGP power plug outlet with rating 90kVA each.
- 1.5 Most remote parking stands are equipped with two nos. of FGP power plug outlet with rating 90kVA each for the main centerline. For left or right auxiliary centerline, one no. of 90kVA FGP power plug is equipped.
- 1.6 Most cargo parking stands are equipped with two no. of FGP power plug outlet with rating 90kVA each. Serving the aircraft via pit system.

B Physical System Risk

Risk	Description	Mitigation
Loss of power supply to FGP Plantroom 1 / Plantroom 2	Loss of power supply from upstream LV Switchroom 'C3' or 'C7' supplying FGP Plantroom 1 or Plantroom 2 respectively.	<ul style="list-style-type: none">• Carry out manual switching to restore the backup supply from LV Switchroom 'C2' or 'C6' with a de-rated total system capacity.
Failure of 380V/960V step up transformer at FGP Plantroom 1 / Plantroom 2	Failure of the duty 380V/960V step up transformer at FGP Plantroom 1 or Plantroom 2	<ul style="list-style-type: none">• Carry out manual switching to restore the FGP circuits to be supplied by backup transformer.
Loss of 50 Hz power supply to the switch board inside Y1 or Y2 substation.	Loss of Fixed Ground Power to cargo stands.	<ul style="list-style-type: none">• Informed Line Maintenance to mobilize Ground Power Unit to serve the aircraft as necessary.

Fire	Damage to FGP equipment inside FGP plant room or substation..	<ul style="list-style-type: none">• FGP plant room and substations are protected by smoke detector.
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C Contingency Planning for Fixed Ground Power Mal-functions

1.0 Criteria for activating contingency plan

- 1.1 Upon detecting any irregularity on the Fixed Ground Power (FGP) units inside FGP plant room 1 & 2 or substations Y1 & Y2.

2.0 Services and manpower involved

- 2.1 Handling of FGP equipment shall be provided by trained line maintenance operator.

3.0 Contingency Procedures

3.1 When irregularities are detected in any one or both FGP plant rooms

- i. When irregularities are discovered at any one or more of the centralized frequency converter inside the FGP plant room(s), the fault shall be immediately reported to FRTMO. FRTMO should immediate inform FRT. FRT shall inform maintenance contractor to attend the fault and take corrective action on the faulty FGP unit.
- ii. When irregularities are discovered at the main FGP switchboards or 380V/960V step up transformers inside the FGP plantroom(s), the fault should immediately report to IAC-ACC and FRTMO. FRT shall immediately inform maintenance contractor to attend the fault and take corrective action on the fault FGP unit. FRT shall report the affected parking stands under the irregularities found to IAC-ACC.

3.2 When irregularities are detected in any one or both of Y1 & Y2 substation.

- i. When irregularities are discovered at the 50 Hz switch board insideY1 or Y2 substation, the fault shall be immediately reported to FRTMO. FRTMO should immediate inform FRT. FRT shall inform maintenance contractor to attend the fault and take corrective action on the faulty FGP unit. FRT shall report the affected parking stands under the irregularities found to IAC-ACC.
- ii. The Line Maintenance Operator is responsible to ensure that the FGP unit is withdrawn from use if malfunction has occurred

4.0 Interface with other operational organizations during contingency

4.1 Line Maintenance

4.2 TSI

D Contingency Procedures during the passage of Tropical Cyclones

1.0 Contingency Procedures

- 1.1 When typhoon signal no. 1 or above is hoisted, maintenance contractor shall be alerted by TSI Typhoon Duty Superintendent or FRT Senior Operation Officer for performing the typhoon precautionary work for all the Fixed Ground Power equipment as when instructed.
- 1.2 Under the instruction from IAC-ACC, FRT Senior Operation Officer shall notify TSI Typhoon Duty Superintendent and maintenance contractor to perform typhoon precautionary work including tying up and securing the remote crocodile units to anchor points by appropriate equipment and any other precautionary work of FGP deemed necessary by the Employer.
- 1.3 TSI Typhoon Duty Superintendent shall coordinate with maintenance contractor to provide sufficient manpower as stipulated in the maintenance contract, with all necessary tools and equipment to perform the typhoon precautionary work in a safe and efficient manner.
- 1.4 After the lowering of typhoon signal no. 3 or under any circumstances considered necessary by IAC-ACC, FRT Senior Operation Officer or TSI Typhoon Duty Superintendent shall instruct the maintenance contractor to untie and reinstate the crocodile units back to the original conditions.
- 1.5 After lowering of the typhoon signal and completion of the reinstating of all FGP equipment to their normal working condition, TSI Typhoon Duty Superintendent or FRT Senior Operation Officer may officially dismiss maintenance contractor's typhoon precautionary team.

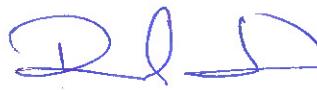
E. Interface with Other Operational Organizations during Contingency

1. Ramp Handling Franchisees;
2. Airlines;
3. Line Maintenance Franchisees;
4. AA TSI

End of BCP – A5

Business Continuity Manual

Business Continuity Plan: A6 Flight Rescheduling Control System

		Signature	Revision	Effective Date
Updated By	Assistant General Manager AD	 Albert Ho		
Reviewed By	Assistant General Manager BCP, SSBC	 Emily Chu	34	Nov 2023
Approved By	General Manager SSBC	 David Jea		

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BCP – A6. FRCS Table of Contents

ITEM SUBJECT MATTER

A	Introduction	A6.5
B	Roles and Responsibilities	A6.5
C	Flight Slot Allocation Criteria	A6.7
D	Flight Rescheduling Control Procedure	A6.8

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A. INTRODUCTION

1.0 Purpose

This document outlines the implementation of Flight Rescheduling Control (FRC) processes following a disruption at the Hong Kong International Airport (HKIA), such as typhoon or inclement weather, in order to recover airport operations back to normal as soon as possible.

2.0 Background

1. Airport operations are occasionally disrupted during Hong Kong's typhoon season when most arrival and departure flights have to be cancelled, delayed or diverted to other airports due to severe weather conditions.
2. The FRC protocol is activated and declared by the AA's Airport Management Director or his / her representative for the operational recovery after the passage of a major tropical cyclone and / or any other airport disruption which warrants the FRC.
3. The purpose of FRC is to handle the traffic backlog following a disruption to normal operations by optimising the use of arrival and departure slots available whilst at the same time avoiding any over stretching of airport facilities such as parking stands and airbridges.
4. This document deals exclusively with the allocation of flight landing and departure slots at the HKIA and flight information display priority at the display units of Flight Information and Display System (FIDS) in the Passenger Terminal Building (PTB) when FRC is activated.
5. Upon clearance of the backlog of flight movements, deactivation of the FRC protocol will be declared by AA's Airport Management Director or his / her representative.
6. Flight Rescheduling Control System (FRCS) is used to facilitate the flight slot allocation process, which is a newly developed browser-based programme that is accessible to authorised users at AA's extranet:
<https://extranetapps.hongkongairport.com/frcs/>
7. Flight Rescheduling Planners, Self-handled Airlines and Handling Agents have been granted access rights and login accounts.

B. ROLES AND RESPONSIBILITIES

1.0 Flight Rescheduling Controller

1. Performed by nominated Assistant General Manager (AGM) or Airfield Manager in the Airfield Department (AD).
2. Lead and liaise with the Civil Aviation Department (CAD) and airlines' representatives and make the final decision on flight slot allocations, when necessary.

3. Communicate with Airlines' representatives about the final decision on flight re-scheduling for cases as escalated by the Flight Scheduling Planner.

2.0 Flight Rescheduling Planner

1. Performed by nominated Airfield Manager or Assistant Airfield Manager.
2. Approve / reject slot requests submitted from airlines / handling agents via the FRCS against runway capacity based on the Allocation Criteria described below.
3. Ensure FIDS Team update the flight information (i.e. mainly ETA / ETD) of approved flights in FIDS.
4. Closely liaise with representatives from ATC and IAC-ACC for real time adjustment of slots allocation in consideration of air traffic and apron operation constraints

3.0 FIDS Team

1. Alert self-handled airlines and handling agents activation of FRC.
2. Update ETA / ETD in FIDS of the approved flights by the Flight Reschedule Planner and accept ETA of incoming flights through User Authorisation even though the flights do not have an approved slot.
3. Closely liaise with the Flight Scheduling Planners for real time adjustment of slot allocations.

4.0 IAC- ACC

1. Execute the query tool in the Aircraft Parking Stand Allocation System (APSAS) to highlight all flights with approved slots (i.e. with ETA/ ETD provided) or with ETA updated via User Authorisation by FIDS Team.
2. Allocate parking stands to incoming flights with ETA updated by FIDS Team and facilitate departure of flights with approved slots by close liaison with ATC and ramp operators.
3. Update AEC and Flight Rescheduling Planners of apron capacity and aircraft parking conditions.

5.0 Air Traffic Control (ATC)

1. Send a representative to AEC to update runway capacity and aircraft movement condition.
2. ATC representative at AEC will closely liaise with Flight Rescheduling Planner to make real time adjustment on flight movement if necessary due to apron and runway operational constraints.

6.0 Airline Operators Committee (AOC)

1. When AOC is alerted by IAC-ACC for the activation of the Flight Rescheduling Control regime, AOC should keep all AOC members informed of activation and stand-down of the Flight Rescheduling Control regime.

C. FLIGHT SLOT ALLOCATION CRITERIA

Flight Rescheduling Planner should approve slots requests based on:

1.0 Departure Vs Arrival Flights

Relative priority between departure and arrival flight subjected to situation at that time e.g. departure priority over arrival if apron is full.

2.0 Airborne Vs On-Ground Flights

Arrival flight airborne from previous port has higher priority over arrival flight still on ground at previous port.

3.0 Scheduled Flights without ETA/ ETD

Remove flight without ETA / ETD submitted.

4.0 Delayed Departure Flights without Check-in/ Boarding Status

Departure flight passing its ETD without check-in or boarding status will have a lower priority.

5.0 Availability of Aircraft on Ground

A departure flight with an aircraft on ground will have a higher priority over another departure flight without an aircraft on ground.

6.0 Revision of Slot Requests

Flight with more than 3 revised ETA / ETD (without reasonable explanation) have a lower priority.

7.0 Airborne Flights without Approved Slot

Flight without slot approved but airborne from previous port, the same carrier will have a lower priority next time.

8.0 Current Seasonal Flight Schedule

1. The number of slots given to an airline in an hour will be based on the percentage of scheduled flights operated in a seasonal schedule against runway capacity as declared by Hong Kong ATC at that time.
2. The percentages of the top 5 airlines will be provided by Manager, Airfield at the beginning of each seasonal schedule, as per the following examples (W23):

	Airline	% of Top 5 Airlines	Runway Capacity*	
			Single Runway 34	Dual Runway 68
1	Cathay Pacific	35%	12	24
2	HK Express	12%	4	8
3	HK Airlines	10%	3	7
4	China Eastern Airlines	4%	1	3
5	Air China	3%	1	2
	Other Airlines		1 flight per hour per airline will be given as far as possible if demand exists. If not, priority will be given in the next hour.	
Remarks: Runway Capacity is subject to the information provided by ATC during FRCS activation.				

* Round down to the nearest integer

3. For other carriers, if slots are available, at least one landing / departure slot is given in an hour per airlines / handling agents' request.
4. Passenger flights will have higher priority over cargo flights. Schedule flights will have higher priority over ad hoc / private flights. Long haul flights will have higher priority over regional flights.
5. In the exceptional circumstances, if the slots still cannot meet the demand, flights with larger passenger capacity will have a higher priority.

D. FLIGHT RESCHEDULING CONTROL PROCEDURE

1.0 Activation of FRC

1. The Airport Management Director or his / her representative in charge of the AEC will initiate the FRC protocol when necessary to ensure smooth and effective resumption of airport operations.
2. Self-handled airlines and handling agents to submit slots requests with latest ETA and ETD for approval via the FRCS. Approved / rejected status will be updated automatically in the system.
3. SOCC to publish the screen of "Airline Contact Phone Number" onto FIDS display units at the Passenger Terminal Building.

4. Airlines should suspend Check-in Services both early check-in and all-day check-in services, and all check-in services will be limited to commence from 3 hours before STD.
5. Flight Reschedule Planner to obtain the latest runway capacity from ATC for approval of slot requests.
6. Due assessment of in-terminal crowd management need, activate Procedure if necessary.
7. Due assessment of Passenger Care Team need activate Procedure if necessary.

2.0 Submission of Slot Requests

1. Self-handled airlines and handling agents to submit slots requests with latest ETA and ETD for approval via the FRCS. Approved / rejected status will be updated immediately in the system.

3.0 Flight Slots Allocation

1. Flight Scheduling Planner will try to accommodate the flights with slots requests submitted whenever flight slots are available.
2. If the slots are full or critical, the Flight Scheduling Planner will allocate slots in accordance with the aforementioned Allocation Criteria. Otherwise, the Flight Scheduling Controller at AEC will make the final decision on slot arrangement.

4.0 Night-Time Procedure

1. When the FRC is activated at night as the operational recovery will likely commence on the following day, airlines / handling agents will be requested to provide IAC-ACC the revised next day schedule and submit slots requests via the FRCS as per the following timetable at local time.
2. The Flight Rescheduling Planner to confirm to airlines / handling agents for their flight slots accordingly.

Flight Movement Period (Minimum)	Flight Schedule Submitted by Airlines / Handling Agents no later than:	Flight Schedule Confirmed by AA at:
06:00 – 11:59 LT	19:00 – 20:59 LT	23:59 LT
12:00 – 17:59 LT	21:00 – 01:59 LT	03:00 LT
18:00 – 05:59 LT	02:00 – 09:59LT	11:00 LT

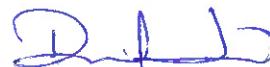
END OF BCP – A6

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Business Continuity Manual

Business Continuity Plan: A7

Industrial Action Plan

		Signature	Revision	Effective Date
Updated By	Assistant General Manager AD	 Albert Ho		
Reviewed By	Assistant General Manager BCP, SSBC	 Emily Chu	32	Jun 2023
Approved By	General Manager SSBC	 David Jea		

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BCP – A7. Industrial Action Plan Table of Contents

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C	Designated Areas for Sit-in / Demonstrations / Picket Lines	A7.6
D	Coordinated Media Management Plan & Information Distribution	A7.6
E	Crowd Management - Landside and Airside	A7.7
F	Security	A7.8
G	Contingency Arrangements - Business Continuity	A7.9

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A. Introduction

1. This is an industrial actions planning template for use by AMD departments.
2. This template lists out major areas that need to be addressed should there be an industrial action planned by staff of an airport related company which may have severe impact upon airport operations.
3. The aim of this template is to maintain airport operations as much as possible for the rest of the airport community without taking sides in any industrial disputes.
4. This template is not exhaustive and other areas of concerns specific to a particular type of industrial action should not be ignored.
5. The assumption is made that forewarning is received on an impending industrial action so that prior business continuity planning and coordination may take place.
6. This generic template will be updated as lessons are learned from responding to other industrial actions at HKIA.

B. Command & Control : Airport Emergency Centre

1. Establish the incident's "person in charge" and his/her contact information from each relevant external organization as well as from AA internal departments.
2. Decision should be made prior to the start of the industrial action on whether the AEC needs to be activated and/or an onsite command post to be establishing on the day.
3. Other decisions concerning the AEC or onsite command post includes :
 - a. When should AEC / onsite command post be activated – specify time, date and location (for the command post) if possible.
 - b. Who is expected to man the AEC / onsite command post; what organizations are expected to send representatives.
 - c. How to inform all relevant parties that the AEC is activated on the specified time and date.
 - d. AEC roster pattern should be decided, i.e. 24-hour manning or reduced manning during midnight hours, etc.
 - e. Activation or standby responses specific to the incident, i.e. Flight Rescheduling Control System Team on standby, or, concurrent activations of other command centers from CTO's/GHA's/Police, etc.
 - f. Anticipated duration of incident, hence, of AEC activation so that relevant parties can plan for manpower deployment especially for extended AEC activations.

C. Designated Areas for Sit-in / Demonstrations / Picket Lines

1. As much as possible, engage the potential demonstrators in discussions on their planned demonstration activities.
2. Facilitate their demonstrations in designated areas.
3. Discussions with demonstrators should be carried out in partnership with the Police, the discussions may include:
 - a. The agreed designated area/ routes for facilitating their sit in/ procession request
 - b. The Do's and Don'ts during their sit in/processions activities
 - c. Reminder to the organizer that the code of activities and any unlawful activities may cause potential breach of the AA bylaw.
4. Discussions internally with the Police and AVSECO should include facilitation of reporters and press members that will be covering the demonstrations; facilitation may include :
 - a. Designating specific areas for the reporters and press members.
 - b. Designating CAF information officers that will be at the sites.
5. Agreed plan should be documented and circulated amongst involved parties, including AA CAF; Duty Managers and relevant staff deployed to manage the incident in real time needs to be briefed prior to their coming on shift/ arriving on site.
6. The area to be managed by the appropriate duty managers and appropriate staff deployed to act as site liaison as well as constantly monitor activities in and around the designated areas.
7. Major designated areas include :
 - a. T1 Level 5 Meeters and Greeters Hall
 - Designated Area 1 – Transition Deck (South/ North)
 - Designated Area 2 – Adjacent to the glass wall at Hall B between the binnacle and the directional signage
 - Designated Area 3 – Adjacent to the miniature garden at Hall A
 - b. Landside Areas
 - Car Park 1 – Adjacent to the open area of Limousine Lounge
 - HKIA Tower LG/F – near Visitor Drop-off and Pick-up Area

D. Coordinated Media Communication Plan & Information Distribution

1. Implement a coordinated media communication plan :
 - a. Agree, at least in principle, with involved parties/ companies on implementation of a coordinated media communication plan.

- b. Major stakeholders should include the company involved in the dispute, its parent company if applicable, Police and other government departments as necessary.
 - c. Confirm that the AEC will be the primary conduit for information exchanges and updates.
 - d. Designate liaison persons and spokespersons from each party.
 - e. Start working together on various possible scenarios with corresponding key messages as well as stocking up on press kits and lists of potential Q&A's.
 - f. AA CAF should be driving the coordination process and reach out to the involved parties.
2. Discuss and agree on work processes as well as liaison persons in order to prepare contents and implementation details. For example:
 - i. In-Terminal announcements
 - Pre-recorded announcements to be made during incident in English, Cantonese and Putonghua;
 - Electronic emergency notices will be broadcasted at baggage reclaim hall to inform arrival passengers of industrial action and other important information.
 - ii. In-flight announcements
 - In-flight announcement of incident to prior to landing to inform passengers of special arrangements, etc.
 - iii. Website management
 - Who will alert others of developing situation,
 - What messages should be uploaded,
 - When it should be uploaded,
 - What messages should be deleted and when to delete, etc.
 - iv. Media enquiries e.g. Emergency notices / information / press releases/ enquiry numbers to be communicated to media, etc.

3. Emergency Message Broadcast (EMB)

ADM should activate the EMB procedure based on the perceived impact of the incident. (The details of the procedures are in the TLPN covering In-Terminal announcements including PA, Universal Display System (UDS) and multi-media walls of T1; announcements on HKIA Website and My HKG App; and announcements/ mobile displays at AEL in-town check-in.)

E. Crowd Management : Landside and Airside

1. Consider impact of industrial action and necessity of activating either or both the Landside & Airside Crowd Management plans.

2. ADM to chair the crowd management coordination meetings supported by TOD Terminal Operation & Government Facilitation Section and LD Landside Services Section as they are the process owner.
3. Ensure meetings include all key players; AOC, GHA, Police, ImmD, C&E, AVSECO, SSBC, TOD, LD, Airfield, ABD etc.
4. Ensure coordination establishes the following :
 - a. Which parts of the crowd management plan to set up; Landside or Airside or both or only certain relevant parts?
 - b. Any specific areas to the industrial action not already covered in the plans and that will need sufficient mills barriers/tensor barriers, staffing, directional signage, etc.
 - c. When set up is to be completed
 - d. When will the set-up be staffed and by whom.
 - e. Estimated duration of staffing so manpower utilization plans can be formulated.
5. Ascertain if AA PCT teams are to be deployed; if yes, ensure :
 - a. PCT team leaders are briefed on the overall situation.
 - b. PCT Leaders to contact CAF members upon PCT activation so that CAF can include them in the information distribution, to keep abreast of developing situation and able to brief their team members of the latest updates.
 - c. Activation date and time are disseminated to all teams.
 - d. Supplies of bottled water, snacks (if necessary) & blankets are available and not time-expired.
6. Ascertain if other care teams are to be deployed e.g. from airlines, Civil Aid Service, Auxiliary Medical Service, St John, Red Cross, etc.
 - a. If there is a multi-agency response, establish :
 - i. Roles and responsibilities of each organization.
 - ii. Areas of operations
 - iii. Communication channels
 - iv. Chain of command
 - v. Coordination and liaison
 - b. Establish if there is to be costs involved and if yes, discuss and agree upon cost structures and payment methods.

F. Security

1. Establish coordination meetings with Police and AVSECO to plan for any additional measures required in addition to normal operations e.g. :
 - a. Step up airside vehicle patrols to ensure ramp safety and security is not compromised;
 - b. Increase its landside patrols to monitor the approaches to the Airport Restricted Area Gate Houses;

- c. Reinforce manpower at the Departures and Transfer Screening Points as necessary;
 - d. Re-deploy (upon request of AA through AEC) additional manpower to assist passengers at T1 (e.g. at the Baggage Reclaim Hall)
 - e. Reinforce manpower at the Level 2 Baggage Hall (by means of shift extension) in order to handle anticipated large numbers of short shipped bags.
2. Review Police coverage on the Airport Island platform and their protocol in intervention of any potential breach of the peace.
 3. Discuss and ascertain any additional resources police may be deploying onto the Airport Island platform e.g. a platoon from NTS Emergency Unit to reinforce the airport police deployment.
 4. Establish if any external guarding companies are to be employed, especially by the company involved in the dispute and ensure their command and operational leaders are made known to AEC / Police / AVSECO.

G. Contingency Arrangements – Business Continuity

In the event of industrial action, airlines and their ground support agencies should consider cross-handling flights among themselves.

The following are major functions that may need pre-planning and coordination; they are not exclusive to other airport functions and are intended to provide a framework by which future disruption BCP's can be worked out jointly by relevant stakeholders.

1. Airlines / GHA's Preparations – Discuss and agree upon any additional manpower deployment and / or specific work processes aimed at mitigating anticipated passenger, baggage, cargo or aircraft congestions e.g. :
 - a. Deploy additional and sufficient airline and GHA staff at Baggage reclaim area to assist passengers.
 - b. Make in-flight announcements concerning the industrial action before aircraft lands at HKIA to ensure passengers are given latest developing information as well as to start managing their expectations with possible service disruptions / delays.
 - c. Airlines to activate its own office support team to assist passengers at baggage reclaim area, departing gates, arrival gates, transfer desks, check-in counters and any other areas where passengers may need the airline's assistance.
 - d. Additional manpower from GHA, other airlines, RHO's, CTO's, AA and / or external parties to assist in anticipated congestion areas.
 - e. Airlines or handling agents should provide regular updates to IAC on manpower availability and deployment, as well as the impact on service level and mitigation measures. Mitigation procedures include

- the transfer of passengers to other carriers and/or protecting passengers on flights of later date.
- f. Affected airlines and its handling agents are required to send representatives to IAC/AEC and work closely with Airfield on the updated flight schedule and confirm which flights will depart and arrive on real time basis.
2. Ramp Operations – Discuss and agree upon any additional manpower deployment and / or specific work processes aimed at mitigating aircraft handling issues that may impact upon passenger, baggage, cargo or aircraft congestions e.g. :
- a. Prior coordination arrangement made amongst RHOs for possible cross and / or pool handling.
 - b. Discuss and agree upon special communication processes that may be used during the disruption.
 - c. If necessary, distribution of personal mobile phones and / or TMR.
 - d. Review and agree upon addition ramp manpower deployment with special attention to multiple capabilities e.g. airbridge operations by RHO's, aircraft door opening by qualified ramp and catering staff, refueling operations, cabin cleaning operations, etc.
 - e. Review needs for additional cargo staging areas at cargo apron.
 - f. ACC should only assign frontal stands for confirmed turnaround flights. For arrivals without confirmed ETDs for the outbound section, remote stands should be assigned as far as there are adequate suitable remote stands.
3. Baggage Operations – baggage handling
- a. Prior consent obtained from MTRC to arrange the staging areas located at the ITCI destuffing area, level 2 of T1 for handling overflow bags.
 - b. Review and agree upon the priority of baggage handling with airlines, GHA and RHO, for instance:
 - i. 1st priority : Arrival flights
 - ii. 2nd priority : Departure flights
 - iii. 3rd priority : Transfer flights
 - c. Review and if necessary, arrange additional manpower from contractors.
 - d. Prior arrangement with RHO to conduct baggage handling briefing to the ad hoc recruited manpower
 - e. Discuss, agree and circulate amongst relevant stakeholders the manpower deployment plan showing where and how many additional staff to be deployed. For instance, the manpower is deployed to Problem and Late Bag Area and North & South Problem Carousels

to handle bag overflow. To prevent dieback in Baggage Handling System, the manpower is deployed to offload bags from departure laterals and transfer the bags to assigned staging areas.

- f. If the strike prolongs while the in / out flow of the baggage process is unable to maintain and the baggage is accumulated inside the baggage hall, approval may be sought from senior management to suspend the process of check-in baggage infeeding to the system.
- g. Discuss and agree with relevant stakeholders to enable arrival/ departure passengers to reclaim the delayed bags in applicable ways, for instance:
 - i. Have airline / GHA consider renting function rooms at airport hotels for passengers waiting for their baggage.
 - ii. Have airline / GHA consider delivering baggage to waiting passengers instead of escorting passengers back into Baggage Reclaim Hall.
 - iii. Designate a baggage reclaim belt at Baggage Reclaim Hall for passenger to retrieve their checked baggage from last minute cancelled departures.
- h. In all situations, ensure coordination with C&E as they are amenable to expedite unaccompanied baggage process.
- i. Review, organize and deploy, if necessary, additional ABD staff from office and duty teams to maintain the capacity of the baggage handling system.

4. AA Terminal Operations

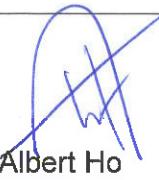
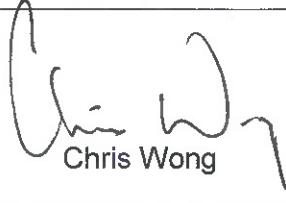
- a. Review and decide upon additional manpower from various resources for handling different aspects of Terminal operations.
- b. Review Duty Team roster to ensure sufficient manning over the anticipated duration of the incident, especially if the incident is anticipated to be over an extended period of time.
- c. Review and decide upon deployment of Passenger Care Team
- d. TOD/LD Support Team – ensure following points are covered :
 - i. Who, when, where to conduct initial briefings for support teams as well as designate responsible person for subsequent regular briefing schedule to ensure they are kept abreast of developments.
 - ii. Total staff deployment numbers and shift patterns.
 - iii. Staff deployment positions e.g. at L6 airside / landside, L5 transfer area and M & G hall to assist duty team and passengers.
- e. Airport Ambassador (AAP) – ensure following points are covered :

- i. Who and when to conduct initial briefings as well as designate responsible person for subsequent regular briefing schedule to ensure they are kept abreast of developments.
- f. Extra staff deployment
- g. Review and agree upon baggage assistance service at baggage reclaim areas
- h. Review and agree upon baggage trolley recirculation
- i. Review and agree upon additional staff deployment to manage passenger flow at APM locations, transfer points, at M&G halls exit points, at information desks, etc.
- j. Review and agree if any check-in counters reallocation have to be arranged for a better crowd control in the vicinity of sit in/procession area.
- k. When FIDS contingency display procedure is activated, flights that are not confirmed by airlines or handling agents should be moved to UDS.

END OF BCP – A7

Business Continuity Manual

Business Continuity Plan: A8 Aviation Fuel Services Disruption Plan

		Signature	Revision	Effective Date
Updated By	Assistant General Manager AD	 Albert Ho		
Updated By	Assistant General Manager LPAF	 Chris Wong	32	Jun 2023
Reviewed By	Assistant General Manager BCP, SSBC	 Emily Chu		
Approved By	General Manager SSBC	 David Jea		

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BCP – A8. Aviation Fuel Services Disruption Plan

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A. Background

Supply Chain of Aviation Fuel Supply for HKIA

1. Aviation fuel is delivered to the Permanent Aviation Fuel Facility (PAFF) located at Tuen Mun Area 38 (which is currently operated by ECO Aviation Fuel Services Limited) by ocean going tankers ranging from 10,000 to 80,000 dwt from refineries or fuel depots located outside Hong Kong territory.
2. After settlement and quality checks at PAFF, aviation fuel is then transferred to the On-Airport Aviation Fuel System which is currently operated by AFSC Operations Limited via twin pipelines (submarine and shore-based) connecting through Sha Chau.
3. Through the fuel hydrant and distribution system, aviation fuel is uplifted to aircraft via hydrant dispensers operated by the into-plane fuelling services franchisees.
4. At the BAC apron, aviation fuel is uplifted to the business jets via hydrant dispenser operated by the Business Aviation Centre operator.
5. For aircraft parking at the maintenance bays which have no fuel hydrants, the uplift of fuel to aircraft is via bowsers.

Mandatory Fuel Inventory at HKIA

1. As mandated by the Government, fuel inventory equivalent to at least 11 days of fuel uplift at HKIA has been maintained in the On-Airport Aviation Fuel System and PAFF collectively as contingency to cater for unforeseen disruption in the aviation fuel supply. On average, the fuel inventory maintained in the system is about 15 days of fuel uplift which is above the mandatory fuel inventory level.

Protective and Mitigation Measures

1. Hong Kong is susceptible to tropical cyclones and the jetties for the On-Airport Fuel System at Sha Chau and PAFF were vulnerable to external damage during inclement weather. To reduce the risk of failure of aviation fuel facilities, two protection tugboats will be deployed, one each at Sha Chau and PAFF, during typhoon signal no.3 and above. The protection tugboats would proactively protect the jetties from collision by any third party objects such as vessels which have lost its power and drift towards the two locations.

B. Prolonged Suspension of Operation at PAFF

1.0 Failure Impacts

1. A prolonged suspension at PAFF is for expected disruption of operation for 7 days and above. It will include scenarios covering a complete disruption of operation of the tank farm's critical facility, the jetty and the submarine pipelines connecting to the On-Airport Aviation Fuel System.
2. With suspension of operation at PAFF, the receipt of fuel from ocean-going tankers will also be suspended. As a result, HKIA will need to rely on its remaining fuel inventory maintained in the On-Airport Aviation Fuel System to support its day-to-day operation.
3. If it is expected that the operation of PAFF cannot be resumed within a week from its suspension, Land, Property & Aviation Franchises Department (LPAF) shall report the incident to the Executive Director – Airport Operation. Subject to the decision of the Authority, activation of the fuel rationing scheme on the airlines will need to be considered in order to control the demand of fuel until PAFF can resume normal operation.

2.0 Failure Recovery

1. If there is an expected prolonged suspension of operation at PAFF, to resume supply of fuel to HKIA, AFSC Operations will firstly activate the Aviation Fuel Emergency Connection ("AFEC") located at the West Quay of the airport island.
2. In parallel, the Aviation Fuel Receiving Facility ("AFRF") at Sha Chau, which is currently serving as an emergency back-up, will be reinstated by AFSC Operations.
3. The reinstatement works of AFRF will take approximately one week.
4. The AFEC can accommodate one barge of size of ranging from 1,000 to 1,800 dwt and AFRF can accommodate two barges of maximum size of 6,000 dwt simultaneously.
5. With the settlement and quality check process performed at other fuel depots located outside Hong Kong territory, aviation fuel will be delivered to the AFEC and AFRF by barges employed by the fuel suppliers.
6. AFSC Operations will coordinate with the fuel suppliers on the scheduling of barges in using the AFEC and AFRF to receive the fuel, and close communication will be maintained with the AA AEC and the relevant Government Departments concerned, including but not limited to the Fire Services, Marine and Agricultural, Fisheries & Conservation Departments.
7. In the event that there is an expected prolonged fuel supply disruption at HKIA for a period of 7 days and above, and if situation warrants, pursuant to the arrangement as stated in "Contingency Measures for Aviation Fuel Supply", Chapter 16 of the Oil Supply Contingency Plan issued by the Hong Kong SAR

Government, the “Oil Distribution Sub-committee (ODSC)” for the Airport Sector and the “Task Force to Ration Aviation Fuel for the Airport” will be set up which will be chaired by the Airport Authority and the Civil Aviation Department respectively.

8. The Task Force will review the rationing of aviation fuel at the airport and advise the ODSC of the agreed rationing scheme for implementation.
9. A copy of Chapter 16 to the Oil Supply Contingency Plan is included in this section for easy reference. It will be amended as the Government’s plan is updated.
10. Advice on and the operation of any aviation fuel quota system will be provided by the Director General of Civil Aviation in consultation with the Airport Authority, AFSC Operations, PAFF, aviation fuel suppliers and airlines.

C. Interruption of Operation at AFRF

1.0 Failure Impacts

1. With suspension of operation at AFRF, no aviation fuel can be transferred from PAFF to the On-airport Fuel System. As a result, HKIA will need to rely on its remaining fuel inventory maintained in the On-airport Aviation Fuel System to support its day-to-day operation.
2. If it is expected that the operation at AFRF cannot be resumed, AA-LPAF shall immediately alert the Executive Director – Airport Operations for the incident.

2.0 Failure Recovery

1. If it is expected that there would be a prolonged suspension of operation at AFRF for more than 3 days, to resume supply of fuel to HKIA, AFSC Operations will firstly activate the Aviation Fuel Emergency Connection (“AFEC”) located at the West Quay of the airport island which can accommodate one barge with size ranging from 1,000 to 1,800 dwt. With the settlement and quality check process performed at PAFF, aviation fuel will be delivered by barges to the AFEC.
2. In addition, pursuant to the arrangement as stated in “Contingency Measures for Aviation Fuel Supply”, Chapter 16 of the Oil Supply Contingency Plan issued by the Hong Kong SAR Government, the “Oil Distribution Sub-committee (ODSC)” for the Airport Sector and the “Task Force to Ration Aviation Fuel for the Airport” will be set up which will be chaired by the Airport Authority and the Civil Aviation Department respectively.
3. The Task Force will review the rationing of aviation fuel at the airport and advise the ODSC of the agreed rationing scheme for implementation.

4. A copy of Chapter 16 to the Oil Supply Contingency Plan is included in this section for easy reference. It will be amended as the Government's plan is updated.

D. Suspension of On-Airport Fuel System

1.0 Failure Impacts

No aviation fuel can be uplifted to the aircraft.

2.0 Failure Recovery

If there is any suspension of the operation of the on-airport fuel system, AFSC Operations shall report the incident to IAC, ACC and AA-LPAF. If situation warrants, the fuel rationing process as stated in "Contingency Measures for Aviation Fuel Supply", Chapter 16 of the Oil Supply Contingency Plan issued by the Hong Kong SAR Government will be activated.

E. Failure of SCADA for the On-Airport Aviation Fuel System

1.0 Failure Impacts

Temporary suspension of fuel supply to the aircraft will be resulted.

2.0 Failure Recovery

1. In the event of failure of the SCADA system, the control on distribution of aviation fuel will be transferred from the Operations Control Room located at the Tank Farm to the LV Switch Room.
2. A Tank Farm Operator will manually switch on or off the fuel pumps at the LV Switch Room as instructed by the Operations Control Room.
3. The failure of the SCADA will also de-activate the automatic "Emergency Shut Down" ("ESD") of the fuel system.
4. The emergency shutdown of the fuel system can only be activated at the LV Switch Room.
5. Reliable radio communication must be established and tested amongst the AFSC's Operations Control Room, Tank Farm Operators and Apron Patrols.
6. The communication with into-plane fuelling services franchisees will be by telephone. The list of emergency contact is included in this section for easy reference.
7. AFSC Operations will deploy manpower at the LV Switch Room and to patrol on the aprons to enable quick response to emergencies during the failure of SCADA.

8. AFSC Operations will communicate with AA-Airfield Department and the into-plane fuelling services franchisees to ensure that they are fully aware of the alternative arrangement should ESD is de-activated.

F. Activation of Emergency Shut-Down

1.0 Failure Impacts

In case of an emergency situation (such as major spillage due to refuelling equipment failure, hydrant pit valve damaged by ground handling vehicles, aircraft fire etc) , the Emergency Shut-Down (ESD) system will be activated and the fuel supply to aircraft will be suspended.

2.0 Failure Recovery

1. When an ESD signal is generated, either due to the activation of an ESD push button or a system fault from the fuel control computer, the SCADA system will shut down the system by zones.
2. The aviation fuel hydrant system is currently divided into 13 segregated zones. Details are as follows:
 - a. AFSC AOA
 - b. Cargo Apron
 - c. Passenger Apron – Southern
 - d. Passenger Apron – Western
 - e. Passenger Apron – Northern
 - f. West Cargo Apron 1
 - g. West Cargo Apron 2
 - h. West Cargo Apron 3
 - i. T1M Apron – Eastern
 - j. T1M Apron – Western
 - k. T1 Midfield Apron 1
 - l. T1 Midfield Apron 2
 - m. BAC Apron

Drawing of the ESD Zonings is shown in Figure 8.1 for easy reference.

3. As stands N70 and N68 are located side by side, special arrangement of ESD response for these two stands are as follows:
 - a. In the case of ESD activated at N70 or W71, fuel supply to all stands at Western Passenger Apron will be terminated. Besides, fuel supply to stands N62, N64, N66 and N68 will also be stopped.
 - b. In the case of ESD activated at N66 or N68, fuel supply to all stands at Northern Passenger Apron will be terminated. Besides, fuel supply to stands N70, W71, W69, W67, W65, W63 and W61 will also be stopped.
4. The ESD zoning will provide an effective response to the ESD events and minimize the impact on the airfield operations.

5. The fuel supply interruption will be confined within the affected zone where an ESD signal is generated. Subject to the incident location, the interruption could be further confined into the nearest stands.
6. The fuel supply to other parking stands, which are located remotely from the position where an ESD signal is generated, will not be affected.
7. Upon activation of ESD, AFSC Operations shall immediately deploy its staff to investigate the situation. If the fuel supply cannot be resumed in 3 minutes, AFSC Operations will alert AA-Airfield / AA-LPAF and the extent of fuel interruption. AA-Airfield Department will assign parking bay for aircraft based on the actual situation.

G. Into-Plane Operation Disruptions

1. To minimize the potential impacts on the into-plane refuelling services at HKIA due to operation disruption / failure of individual franchisee, it is important to ensure the contingency preparedness of the three into-plane refuelling operators at HKIA to manage any unexpected operation disruptions within or outside their premises.
2. In case of manpower shortage on the refuellers due to any industrial action of individual franchisee, the franchisee concerned will deploy their own mechanics / other staff from different functions to carry out the re-fuelling operations.
3. If situation warrants, they will also seek the support from other into-plane refuelling franchisee(s) at HKIA through separate commercial arrangement provided that surplus capacities are available at the other franchisee(s) at the time of emergency.
4. Similarly, in case of shortage of fuelling vehicles of individual franchisee, to mitigate overall impact of the re-fuelling operations at HKIA, the franchisee concerned will also seek the support from other into-plane refuelling franchisee(s) through separate commercial arrangement.

H. HKG Government Oil Supply Contingency Plan – Airport Sector

1. Current version of Chapter 16, Airport Sector, HKG Government Oil Supply Contingency Plan (2019 Edition) is attached for easy reference.
2. This current version will be amended as the Government plan is periodically updated.

Franchisees' Emergency Contact

Franchisees	Name of & phone no.	Duty manager/ control phone no.	Duty manager/ control email address
AFSC Operations Ltd (On-Airport Aviation Fuel System Operator)	Technical & Safety Manager Matthew Wu 2988 6128	2988 6161	matthewwu@afsc.com.hk
AFSC Refuelling Ltd (Intoplane Services Operator)	Refuelling Manager Alex Au 2988 6199	2949 9722 / 2949 9723	alexa@afsc.com.hk
CNAF Hong Kong Refuelling Ltd (Intoplane Services Operator)	General Manager Anson Lin 2995 9595 / 6581 0658	9025-8470 / 2995 9588	linas@cnafhk.com.hk
ECO Fuel Services Ltd (EAFS) (PAFF Operator)	General Manager Sylvia Har 2212 5713 / 9479 0949	2212 5720 / 2212 5721	sylvia.har@ecopaff.com
WFS Fuelling Ltd (Intoplane Services Operator)	General Manager Jeff Tsui 3691 8139 / 9386 3706	2180 2549 / 2180 2550	jtsui@worldwideflight.com.hk



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Chapter 16 : The Airport

1. THE AIRPORT

- 1.1 The Airport Authority Hong Kong (AA) is a statutory body that operates and maintains the Hong Kong International Airport (the Airport). In addition to the AA, there are around 550 business partners operating on the airport island. Their operations require the consumption of large amount of oil especially in airline operations.
- 1.2 As of May 2019, there are about 130 airlines operating at the Airport. Aviation fuel is supplied to these airlines via fuel storage facilities at the Permanent Aviation Fuel Facility (PAFF) at Tuen Mun and the on-airport aviation fuel tank farm. The PAFF is an off-airport aviation fuel storage facility consisting of 8 nos. of tanks to stock aviation fuel. Aviation fuel shipped by oil tankers would first be received by PAFF and then be transferred via Sha Chau to the on-airport aviation fuel tank farm using submarine fuel pipelines. Aviation fuel is not covered by the Code of Practice on oil reserves, as such, there exist agreements with the operators of PAFF and the on-airport aviation fuel tank farm that their combined fuel inventory shall be maintained above a minimum of 11 days consumption volume. The annual consumption of aviation fuel at the Airport is given in Annex 16.1. (Note: To ensure aviation fuel supply, protection measures have been put in place by AAHK and concerned facility operators to safeguard the fuel receiving and storage facilities from damages due to fire, extreme weather, etc.)
- 1.3 The 11 days minimum reserve requirement could still be fulfilled when the three-runway system (3RS) is in full operation, at which time the yearly demand of air traffic movement is expected to increase by approximately 50% as compared to that of 2018, equivalent to a consumption of about 12.672 billion litres of aviation fuel annually. As a result, 382 million litres of aviation fuel stock would be required to fulfil the 11 days minimum reserve, which is still well below the existing combined aviation fuel storage capacity of both PAFF and on-airport fuel tank farm of 484 million litres.
- 1.4 Other than aviation fuel, diesel and petrol are also used by a number of vehicles and equipment to support the airport operation. There are 4 airside filling stations that supply petrol, tax-free diesel and LPG to vehicles and equipment that operate at the airside operational areas of the Airport only (i.e. most of these vehicles are not registered and licensed under the Road Traffic Ordinance, Cap. 374 for use on public roads). Currently, there are approximately 2150 non-electrical motorised airside vehicles / equipment (July 2019) and oil consumption figures are given in Annex 16.1.
- 1.5 For vehicles and equipment that operate at landside (i.e. public areas of the Airport), supply of diesel and petrol can be obtained from 2 commercial filling stations operating on the airport island or any other commercial filling stations downtown.
- 1.6 In addition, the AA also operates a number of generators. The estimated annual

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consumption of diesel by these generators is given in Annex 16.2.

- 1.7 Advice on and the operation of any aviation fuel quota system will be provided by the Director-General of Civil Aviation in consultation with the AA, On-airport Fuel Tank Farm operator, PAFF (Permanent Aviation Fuel Facility) operator, aviation fuel suppliers and airlines. To deal with the oil supply emergency, contingency measures as detailed in Annex 16.3 will be implemented.
- 1.8 An Oil distribution Sub-committee (ODSC) for the Airport Sector will be convened to coordinate the implementation of the overall oil conservation measures at the Airport at times of emergencies. The composition and terms of reference of the ODSC for the Airport Sector is outlined in Annex 16.4.
- 1.9 To coordinate the rationing of aviation fuel as detailed in Annex 16.3, a separate Task Force to Ration Aviation Fuel for the airport will be set up to advise the ODSC for the Airport Sector on the detailed rationing arrangements. The composition and terms of reference of the task force are given in Annex 16.5. (Note: AAHK's Aerodrome Manual (ADM) part 5 Section 10 *Aviation Fuel Supply* and AAHK's Business Continuity Plan (BCP) A8 *Aviation Fuel Services Disruption Plan* stipulate that the contingency measures as detailed in Annex 16.3, Annex 16.4 and Annex 16.5 are also to be implemented in case of prolonged disruptions of aviation fuel supply at the airport level including disruptions due to physical damages of the fuel receiving and storage facilities mentioned in para 16.2, and disruptions due to extreme weather)

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Annex 16.1

Oil Consumption and Storage of Hong Kong International Airport

Type	Location	Storage Capacity (in litres)	Consumption Data for Illustrative Purposes for year ending 2018 (in litres)
Aviation Fuel	On-airport Fuel Tank Farm	220,000,000	8,448,309,000
	PAFF at Tuen Mun ¹	264,000,000	
Diesel	Airside Filling Station	509,900	9,627,421
Petrol	Airside Filling Station	34,500	723,578
LPG	Airside Filling Station	24,000	221,174

- ¹ PAFF is an off-airport fuel storage facility at Tuen Mun, receiving aviation fuel from oil tankers, then transferring the fuel via Sha Chau to the on-airport aviation fuel tank farm using submarine fuel pipelines.

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Annex 16.2

Consumption of Diesel by Generators and Special Equipment
at Hong Kong International Airport



Generator (LV) Building	Generator Ratings	Underground Oil Tank Size
Airside		
GL1	2 x 1000kVA	30,000 litres
GL2	2 x 1000kVA	30,000 litres
GL3	1 X 1500kVA	5,000 litres
GL4	1 x 1500kVA	5,000 litres
GL5	1 x 1000kVA	5,000 litres
GL7	1 x 1000kVA	5,000 litres
GL8	1 x 1000kVA	5,000 litres
GL13	2 x 1250kVA	30,000 litres
GL14	2 x 1250kVA	30,000 litres
PR3	1 x 1600kVA	2,400 litres
PR4	1 x 1100kVA	2,300 litres
NMF	1 x 275kVA	400 litres
Switching Station WA	1 x 200kVA	500 litres
Chiller Building Generator 1	3 x 1650kVA	5,800 litres + 1,500 litres (Day Tank)
Chiller Building Generator 2		
Chiller Building Generator 3		
Chiller Building Generator 4	1 x 2250kVA	4,000 litres + 450 litres (Day Tank)
MFC Generator 1	1 x 2000kVA	4,000 litres + 450 litres (Day Tank)
MFC Generator 2	1 x 1500kVA	2,500 litres +
MFC Generator 3	1 x 1000kVA	1,000 litres (Day Tank)
MFC Generator 4	1 x 2250kVA	4,000 litres + 450 litres (Day Tank)
MFC Generator 5	1 x 1500kVA	2,500 litres +
MFC Generator 6	1 x 1250kVA	450 litres (Day Tank)
MFC Generator 7	1 x 200kVA	500 litres (Day Tank)
MFC Generator 8	1 x 1000kVA	1,000 litres (Day Tank)
MSUB Generator 1	1 x 250kVA	500 litres (Day Tank)
MSUB Generator 2	1 x 1030kVA	1,000 litres (Day Tank)
NSC Generator 1	1 x 1500kVA	3,500 litres + 450 litres (Day Tank)
NSC Generator 2	1 x 1100kVA	1,000 litres + 450 litres (Day Tank)

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Landside		
GL6	1 x 1500kVA	5,000 litres
GL10	1 x 1000kVA	5,000 litres
GL11	1 x 1500kVA	2,500 litres
GL12 a	1 x 1000kVA	10,000 litres
GL12 b	1 x 1500kVA	
GH1	6 x 5000k VA	2 x 60,000 litres + 7,200 litres (Day Tank)
GTC	1 x 1713kVA	6,000 litres (Day Tank)
HKIAT	1 x 1500kVA	2,400 litres (Day Tank)
T2 GEN-S1A	1 x 2000kVA	1,500 litres (Day Tank)
T2 GEN-S1B	1 x 2000kVA	1,500 litres (Day Tank)
T2 GEN-S3	1 x 1875kVA	3,000 litres + 450 litres (Day Tank)
T2 GEN-S4-1, 2	2 x 2000kVA	3,000 litres (Day Tank)
T2 GEN-S6	1 x 1279kVA	2,500 litres + 450 litres (Day Tank)
T1 Limousine Lounge	1 x 300kVA	450 litres (Built-in Tank)
AWTC	1 x 1500kVA	2,400 litres (Day Tank)
Multi-storey Carpark 4	1 x 85kVA	180 litres (Built-in Tank)
SkyPier	2 x 1800kVA	4,000 litres + 470 litres (Day Tank)

Mobile Generator	Generator Ratings	Oil Tank Size
MG1	1 x 100kVA	150 litres
MG2	1 x 1500kVA	2,000 litres
MG3	1 x 200kVA	530 litres

ARE Equipment	Oil Tank Size
Air Compressor x 4 nos.	160 litre

Total consumption for load test per year	56,400 litres
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Annex 16.3

Contingency Measures for Aviation Fuel Supply

Scenario 1 – “Voluntary” approach with supplies cut by up to 10% (for Intense Monitoring M2)

Consumption could be cut immediately by ceasing to supply fuel to the aircraft operation in the order of priority shown below:

- (a) aircraft making technical stops at Hong Kong for refuelling or crew rest only: none presently do so on scheduled services but some non-scheduled and private flights e.g. delivery flights do;
- (b) training flights; and
- (c) private non-revenue flights.

Another approach of rationing fuel to scheduled services may be to cut the fuel supply by a predetermined scale of percentages according to the severity of the situation and let the airlines decide the most essential services they wish to maintain. Market force should steer them to routes with the highest demand.

Scenario 2 – Supplies cut by up to 25% (for Emergency Level E1)

Under this scenario, it should still be possible to reach agreement with operators about their level of service, using the Task Force to Ration Aviation Fuel as a consultative mechanism. Difficulties may arise because at this stage it is likely that cuts will not affect all operators equally. Exceptions will also undoubtedly need to be made in some cases – e.g. operations for humanitarian reasons.

Within these constraints the general approach may be to curtail the supply of aviation fuel for passenger and cargo services in the order of priority shown below: -

- (a) implement contingency measures for Scenario 1;
- (b) limit the volume of fuel that can be uplifted for each flight to the first sector of the flight. A number of airlines tankered fuel for their return flight from China, Taiwan etc. because of high price differential. These aircraft will be supplied sufficient fuel to their first destination;
- (c) ad hoc non-scheduled flights to or from points already served by scheduled flights; and
- (d) scheduled services to and from points which can be reached by other means (the

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prime example here is Guangzhou for which services could safely be cut completely) and those less important points which can be reached via major commercial centres, such as Kaohsiung via Taipei.

Another approach of rationing fuel to scheduled services may be cut the fuel supply by a predetermined scale of percentages according to the severity of the situation and let the airlines decide the most essential services they wish to maintain. Market force should steer them to routes with the highest demand.

Scenario 3 – Up to 50% cut (for Elevated Emergency Level E2)

In addition to contingency measures for Scenario 1 and 2, detailed consultation, through the Task Force to Ration Aviation Fuel, with airlines and aviation fuel suppliers (and possibly other governments) will be necessary for the operation of reduced frequencies | on the services.

Another approach of rationing fuel to scheduled services may be cut the fuel supply by a predetermined scale of percentages according to the severity of the situation and let the airlines decide the most essential services they wish to maintain. Market force should steer them to routes with the highest demand.

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Annex 16.4

Oil Distribution Sub-committee - The Airport

Composition

- Airport Authority representative - Chairman
- Civil Aviation Department representative
- Representative from Airline Operators Committee
- Representative from Hong Kong Airline Service Providers Association Operations Committee (HOC)
- Representatives from the AA (Airfield Department, Terminal Operations, Market and Connectivity Development Department, Technical Services Department, Aviation Logistics Department & Safety, Security & Business Continuity Department)
- On-airport Fuel Tank Farm operator representative
- PAFF operator representative
- Co-opted members as required

Terms of Reference

1. Monitor the oil consumption and adequacy of oil supply for the airport sector as requested by the Oil Distribution Committee (ODC).
2. Coordinate the undertaking of voluntary and mandatory oil conservation measures in the airport sector as requested by the ODC.
3. Coordinate the implementation of fuel rationing schemes in the airport sector as requested by the ODC.
4. Advise the ODC of the effectiveness of oil conservation measures in reducing the demand of oil in the airport sector.
5. Feedback to the Task Force to Ration Aviation Fuel for the Airport on the progress and effectiveness of any aviation fuel-rationing scheme.

**Oil Supply Contingency Plan
Government of the Hong Kong SAR**

Chapter Ref.: 16
Chapter Revision: 3
Sheet: 9 of 9

Chapter 16 : The Airport

Annex 16.5

Task Force to Ration Aviation Fuel for the Airport

Composition

- Civil Aviation Department representative - Chairman
- Airport Authority representative (Airfield Department, Aviation Logistics Department)
- Board of Airlines' representative
- On-airport Fuel Tank Farm operator representative
- PAFF operator representative
- Aviation fuel suppliers' representative
- Aviation fuel airlines' representative

Terms of Reference

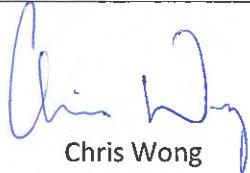
1. To review the rationing of aviation fuel at the airport and advise the Oil Distribution Sub-Committee (ODSC) of the agreed rationing scheme.
2. To monitor the implementation of the rationing scheme and advise the ODSC of any change to the scheme.
3. To develop a communication plan, including warning system, so that all stakeholders are informed of the shortage and the implementation of the aviation fuel-rationing plan at the airport through their representatives in the Task Force.

END OF BCP – A8

Business Continuity Manual

Business Continuity Plan: A9

Aircraft Catering Services

		Signature	Revision	Effective Date
Updated By	Assistant General Manager LPAF	 Chris Wong		
Reviewed By	Senior Manager BCP, SSBC	 Emily Chu	30	Jul 2022
Approved By	General Manager SSBC	 David Jea		

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A. Interruption of Food Supply due to Closure of the North Lantau Highway and Tuen Mun – Chek Lap Kok Link

1. The aircraft caterers usually keep at least one day's supply of fresh food items and two day's supply of other non-critical items at their warehouses.
2. If the interruption of food supply sustains for more than one day, simple meals will be produced by using available stocks and supplied to all airlines and classes.
3. If simple meals are not available, buy-in products will be used as substitution.
4. All changes in food menus are subject to approval of the customer airlines.
5. No Land Link Plan of BCM will be activated if the food supply is interrupted for a prolonged period.

B. Shortage of Labour

1. Shortage of labour could be caused by unavailable road transportation for staff in getting to and from work; or staff industrial actions.
2. In case of unavailable road transportation for staff, No Land Link Plan of BCM will be applied.
3. In case of strike, Industrial Action Planning of BCM will be applied.
4. Available staff would be requested to work overtime and casual workers would be employed.
5. If shortage of labour affects food production, simple meals or snack packs will be used as substitution.
6. All changes in food menus are subject to approval and coordinated by the involved aircraft caterer and its customer airlines.
7. If situation further deteriorates and the aircraft caterers' meal production has come to a halt, airlines could upload meals at the outports at their discretion / coordination.

C. Outbreak of Infectious Disease

1. Infectious Disease could affect the business of the aircraft caterers in two ways:
 - a. Staff contracted the disease
 - b. Food items are contaminated

2. If employees are contracted with the infectious disease, all the infected people will be kept away from work.
3. All the aircraft caterers have contingency plans in place to quarantine the infected staff immediately from work, as well as clean and disinfect the affected work areas.
4. Public Health & Pandemics of BCM will be applied.
5. If the outbreak has led to shortage of staff, aircraft caterers will coordinate its own internal manpower redeployment including options like available staff would be requested to work overtime and causal workers would be employed.
6. All the contaminated food will be destroyed.

D. Major System Breakdown

1. In the event of failure of major system(s), aircraft caterers have fallback procedures including manual operations for delivery of supplies and equipment, tray-setting, ware-washing, garbage dumping, etc.
2. Simple meals or buy-in menu will be used with the coordination and consent of the customer airlines.
3. Disposable airline equipment will be used in case of washing machine or other major system failure.
4. Extra staff will be assigned by the aircraft caterers to participate in the manual operation.
5. If the system failure persists, the aircraft caterer affected will seek assistance from the other two caterers.
6. If situation further deteriorates and the aircraft caterers' meal production has come to a halt, airlines could upload meals at the outports at their discretion / coordination.

E. Major Utility Failure

Power Outage:

1. In the event of power outage, the aircraft caterers will switch to back-up generators.
2. Back-up power supply to production area and essential machineries will be ensured.

3. If the power outage lasts for a prolonged period, extra staff will be assigned by the aircraft caterers to participate in manual operation.
4. Simple meals or buy-in products will be used as substitution.
5. All changes in food menus are subject to approval of the customer airlines.
6. If situation further deteriorates and the aircraft caterers' meal production has come to a halt, airlines could upload meals at the outports at their discretion / coordination.

Stoppage in Water Supply:

1. The aircraft caterers' water reserve kept in their respective water tanks can supply water for at least three hours.
2. If water stoppage lasts for a prolonged period, the aircraft caterers will request water supply by water trucks from the Water Services Department.

Suspension in Gas Supply :

1. The aircraft caterers will divert gas supply from external to in-house storage tanks, if available.
2. Electric cooking devices will be used to maintain production.

F. Blockage of Gatehouse 3A

1. Catering trucks operating on ramp do not have public road licences.
2. They enter airside via Gatehouse 3A ("GH3A") under the caterers' respective security programmes.
3. The emergency lane at GH3A is kept unoccupied in normal situation to facilitate through traffic to/from airside without blockage during emergency situations.
4. If there is incident occurred causing a complete blockage of GH3A, the catering trucks could use Gatehouse 3 ("GH3") to enter airside.
5. The caterers will seek support from AA, Transport Department and AVSECO for ad hoc arrangement to escort their catering trucks from their facilities to GH3 via the public road.
6. CAD & Customs will also be notified.

END OF BCP – A9

Business Continuity Manual

Business Continuity Plan: B1

Automated People Mover

		Signature	Revision	Effective Date
Updated By	Manager ABD / Assistant General Manager ABD	 Steve Ho /  Kevin Chim		
Reviewed By	Assistant General Manager BCP, SSBC	 Emily Chu	34	Nov 2023
Approved By	General Manager SSBC	 David Jea		

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<u>ITEM</u>	<u>SUBJECT MATTER</u>	
A	Train operation during typhoon/rainstorm	B1.5
B	Incident and Emergency	B1.6
C	System and Equipment Failure	B1.18
D	Incident involving flooding	B1.31
E	Service Suspension	B1.36

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A. Train operation during typhoon / rainstorm

1.0 Provision of train service

- 1.1 Normally, train service will not be affected by typhoon / rainstorm since trains are operated in tunnel. During typhoon / rainstorm, APM Operation Controller (APMOC) shall:
- i. maintain close communication with Airport Duty Manager (ADM) via APMAM;
 - ii. monitor and adjust the level of service in response to the demand;
 - iii. check the inspection items related to typhoon / rainstorm preparedness and monitoring of the condition of the tunnel via CCTV system.
 - iv. liaise with APM Maintenance Controller to dispatch a Maintenance Technician to ride on train regularly for checking track conditions.
 - v. if flooding occurs, refer to ‘Flooding’ of the Part B section 3.4 and Part D of this BCP-B1;
 - vi. ensure that all staff members and relevant parties stay alert;
 - vii. maintain close communication with APM Maintenance Controller (APMMC) to ensure that temporary structures, plant and other loose objects are properly secured;
 - viii. ensure that necessary equipment is ready for use in emergency;
 - ix. all staff shall refer to Corporate Notice / Corporate General Instruction for the relevant section regarding Safety and Health and corresponding team’s working instruction; and
 - x. Coordination with APMMC to monitor the working conditions especially at tunnels. They shall ensure that the working conditions are safe. Otherwise, any work or operation shall be stopped and reported to APM Assistant Duty Manager (APMAM).

B. Incident and Emergency

1.0 Guidelines for suspension of service

1.1 When to suspend train service

APMOC shall seek approval of APMAM to declare train service suspension only when:

- i. the track is unsafe for operation;
- ii. tunnel door or emergency gate is opened;
- iii. an incident that disrupts train service occurs; and
- iv. remedial work must be carried out during service hours.

1.2 Action for APMMC

If train service suspension is decided, APMMC shall:

- i. communicate with APMOC for incident handling; and
- ii. dispatch a Maintenance Technician or Vehicle Operator to handle the incident according to Part B and C of this BCP-B1.

2.0 Handling passenger-related incident

2.1 Action for APMOC

2.1.1 Passenger injury on train between stations

When APMOC is informed that a passenger is injured on a train between stations, he/she shall:

- i. confirm the location at which the train will be held;
- ii. inform APMAM about the incident and then APMAM inform IAC-TOD or IAC-LD;
- iii. inform APMMC to dispatch a Maintenance Technician to the location of the incident and assists the Airport Authority (AA) staffs for handling the incident;
- iv. after the incident, seek approval of APMAM that normal service can be resumed; and
- v. inform APMMC of the incident for any follow-up action

2.1.2 Passenger injury on train at station

When APMOC is informed that a passenger is injured on a train at station, he/she shall:

- i. confirm the train will be held at station;
- ii. inform APMAM about the incident and then APMAM inform IAC-TOD or IAC-LD;
- iii. inform APMMC to dispatch a Maintenance Technician to the location of the incident and assists AA staffs for handling the incident;

-
- iv. after the incident, seek approval of APMAM that normal service can be resumed, and
 - v. inform APMMC of the incident for any follow-up action

2.1.3 Passenger-activated emergency call

When APMOC receives an emergency call from a passenger, he/she shall:

- i. communicate with passengers via communication control panel;
- ii. ascertain the reason of the call and assess the situation;
- iii. check and acknowledge alarm, if any;
- iv. handle the incident by carrying out appropriate procedure in Part B of this BCP-B1;
- v. inform APMAM of the incident and solicit support as necessary; and
- vi. inform APMMC if follow-up is necessary.

2.2 Action for Maintenance Technician

2.2.1 If passenger injury occurs on train between stations / at station, Maintenance Technician will be dispatched by APMMC to the location of the incident. When arriving at the incident site, he/she shall:

- i. provide assistance to the AA staff on site;
- ii. inspect the concerned part of the train where injury occurs;
- iii. check to ensure that the train is safe for passenger service; and
- iv. inform APMMC and submit a report later as necessary.

3.0 Handling track-related incident

3.1 Person fallen onto the track

3.1.1 Action for APMOC

When APMOC is informed that a person has fallen onto the track, he/she shall:

- i. confirm with IAC-TOD or IAC-LD:
 - about the location of the incident;
 - whether the person was hit by the train; and
 - whether the Emergency PDS Trip button on Emergency Panel has been triggered;
- ii. inform APMMC to dispatch a Maintenance Technician to the location of the incident and assist to handle the incident;

- iii. inform IAC-TOD or IAC-LD that APMMC or Maintenance Technician will assist to handle the incident;
- iv. monitor the situation closely; and
- v. after receiving confirmation from APMMC that traction power has been resumed, APMOC shall resume APM service and inform IAC-TOD or IAC-LD accordingly.

Important Note: If it is likely that the removal of person from track will take 15 minutes or more, APMOC shall liaise with IAC-TOD or IAC-LD for detrainment.

3.1.2 Action for Maintenance Technician

When arriving at the incident site, Maintenance Technician shall:

- i. provide technical assistance to personnel of Fire Service Department if the train is required to be jacked up;
- ii. check both the train and track to ensure that they are safe for operation before resumption of service;
- iii. arrange restoration of traction power; and
- iv. report to APMOC.

3.2 Plinth and structure problems

3.2.1 Plinth and structure problem can be identified by the following symptoms:

- i. bumpy or jerky movement of APM;
- ii. abnormal noise;
- iii. damage to train body; or
- iv. frequent occurrence of inappropriate stopping position.

3.2.2 Handling procedure during non-service hours of APM, Maintenance Technician shall:

- i. assess the situation;
- ii. arrange remedial work to be carried out immediately; and
- iii. inform APMMC of any possible delay to the normal operation.

3.2.3 Handling procedure during service hours of APM, APMOC shall:

- i. inform APMMC to dispatch a Maintenance Technician to investigate the cause;

-
- ii. assess whether it is safe to continue APM service; and
 - iii. if remedial work needs to be carried out immediately, inform concerned parties in IAC to arrange service suspension.

3.3 Switch failure

3.3.1 If the switch failure will not affect train service, APMOC shall:

- i. monitor the train service; and
- ii. inform APMMC to dispatch a Maintenance Technician to rectify the failure at a time that will cause minimal disruption to normal train service.

3.3.2 If the switch failure will affect train service, APMOC shall:

- i. seek approval of ADM via APMAM to stop the train service on the concerned lane;
- ii. switch off traction power after authorisation has been obtained from APMAM;
- iii. inform APMMC to dispatch a Maintenance Technician to manually operate the switch to the required position;
- iv. ensure that control at Maintenance Depot is maintained;
- v. confirm the position of the switch and the route established;
- vi. ensure that the lever is removed from the switch machine;
- vii. when all staff are clear of the track, switch on traction power; and
- viii. seek APMAM authorization to resume train service in degrade.

Important Note:

- i. Staff accessing track must follow the guidelines of access to track and emergency platform from APMOC and APMMC; and
- ii. Traction power must be switched off and the power rails earthed before staff access to track.

3.4 Flooding

3.4.1 When flooding occurs on the guideway, APMOC shall:

- i. inform IAC-TOD or IAC-LD;

-
- ii. inform APMMC to dispatch a Maintenance Technician to inspect the site; and
 - iii. if the flood will not affect the power rails and switches, closely monitor the situation and continue train service.
 - iv. if the flood is above the plinth surface, inform IAC-TOD or IAC-LD to suspend train service.

- 3.4.2 Upon arrival at the location of flooding, Maintenance Technician shall:
- i. identify the exact location;
 - ii. assess the impact to train operation; and
 - iii. report the details to APMOC and APMMC.

4.0 Train collision

4.1 At Maintenance Depot

- 4.1.1 When train collision occurs at Maintenance Depot, APMMC shall:
- i. disconnect power supply to the affected vehicles;
 - ii. inform APMOC to summon Fire Services Department / ambulance if any staff is injured; and
 - iii. inform APMOC of any impact to train service.

4.1.2 Responsibility of APM Maintenance Manager

- i. Subsequent to the incident, APM Maintenance Manager shall investigate the incident and submit a report to AA by the most expeditious means.

4.2 On main line

- 4.2.1 When train collision occurs on main line, APMOC shall:
- i. confirm that “Hold in Station” button on Emergency Panel has been triggered;
 - ii. confirm that all passengers of the unaffected trains are detrained to station platforms;
 - iii. confirm that “Emergency PDS Trip” and “Vehicle Stop” buttons on Emergency Panel have been triggered;
 - iv. confirm that train doors on emergency walkway side of the affected train have been opened remotely;

-
- v. inform IAC-TOD or IAC-LD that APMMC or Maintenance Technician will assist to handle the incident;
 - vi. inform APMMC to dispatch a Maintenance Technician to apply earth cables, provide assistance for opening the doors of the affected train and provide technical assistance to personnel from Fire Services Department if necessary.
- 4.2.2 After detrainment, APMOC shall liaise with Maintenance Technician in removing the train to Maintenance Depot. He/she shall also update the APMOC of the progress and estimated time of service resumption.
- 4.2.3 After receiving Maintenance Technician's confirmation that traction power has been resumed and APMMC's authorisation, APMOC shall assist to resume APM service.
- Important Note: Traction power must be switched off and power rails earthed before staff access to track.
- 4.2.4 When arriving at the incident site, Maintenance Technician shall:
- i. provide technical assistance to personnel of Fire Services Department if the train is required to be jacked up;
 - ii. check both the train and track to ensure that they are safe for operation before resumption of service;
 - iii. arrange restoration of traction power; and
 - iv. report to APMOC.
- 4.2.5 Responsibility of APM Maintenance Manager
- Subsequent to the incident, APM Maintenance Manager shall investigate the incident and submit a report to AA by the most expeditious means.

5.0 Handling fire

- 5.1 General guidelines
- 5.1.1 **Preservation of life** must always be regarded as the most important principle of firefighting;
- 5.1.2 Traction power must be switched off and power rails earthed when:
- access to the guide-way is required; or
 - it is necessary to use water for fire fighting;

-
- 5.1.3 Members of staff shall provide assistance or technical support to personnel of Fire Services Department when required;
 - 5.1.4 APMOC shall check fire panel's indication and check with IAC-TOD on location of fire through the fire alarm system. Confirm with IAC-FRT to switch on environmental control system to exhaust smoke when required.

5.2 Fire at station

- 5.2.1 When APMOC is informed that fire breaks out at a station, he/she shall:
 - i. inform concerned parties in IAC of the incident;
 - ii. regulate the train service if required.

5.3 Fire on train between two stations

When APMOC learns that fire breaks out on a train which is located between two stations, he/she shall keep close communication with concerned parties in IAC and assist to handle the incident if appropriate. The fire evacuation plan between West Hall (WH) and T1M shall refer to Section 5.6. The fire evacuation plan between East Hall (EH) and Maintenance Depot shall refer to Section 5.7.

5.4 Detraining passengers to emergency walkway

- When detraining passengers to the emergency walkway is required, APMOC shall:
- i. confirm that "Hold in Station" button and "Emergency PDS Trip" button on Emergency Panel have been triggered;
 - ii. inform APMMC to dispatch a Maintenance Technician to apply earthing cables; and
 - iii. inform APMMC to dispatch a Maintenance Technician to direct personnel of Fire Services Department to the incident site.

5.5 Fire at Maintenance Depot/T&C/equipment room

- Any staff member who knows that fire breaks out at Maintenance Depot/ equipment room shall:
- i. shout "fire";
 - ii. activate an alarm by breaking the glass of the nearest fire call-point;
 - iii. inform APMOC who must alert APMAM;
 - iv. use portable fire extinguisher to put out the fire if it is safe to do so; and

- v. leave the Maintenance Depot/equipment room immediately and proceed to the designated Fire Assembly Point.

5.6 Evacuation between WH and T1M

Figure 1 – Exit Staircase between WH and T1M

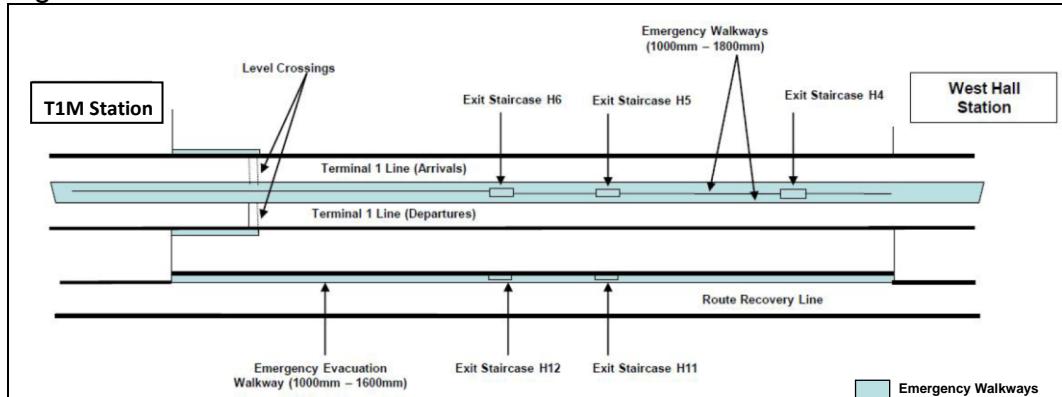


Figure 2 - Evacuation Scenario 1 - between WH and T1M

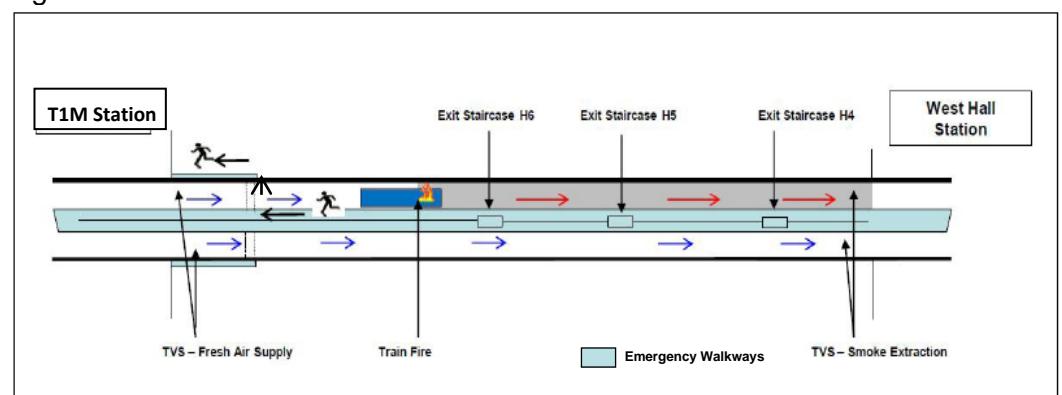


Figure 3 - Evacuation Scenario 2 - between WH and T1M

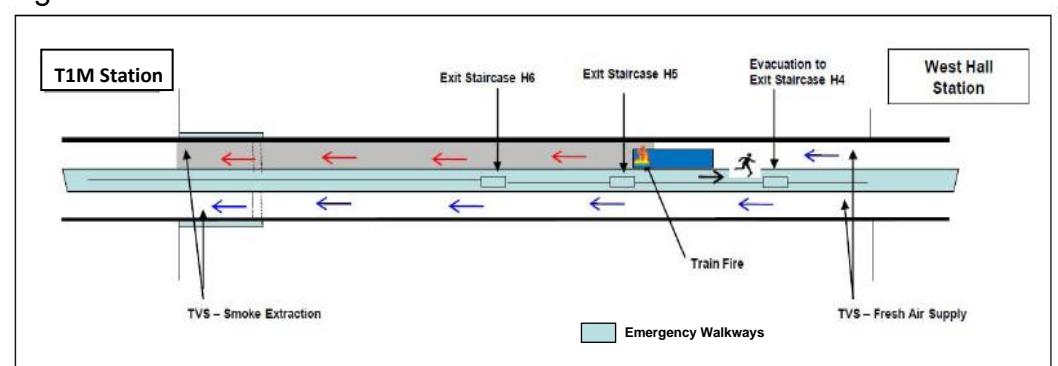


Figure 4 - Evacuation Scenario 3 - between WH and T1M

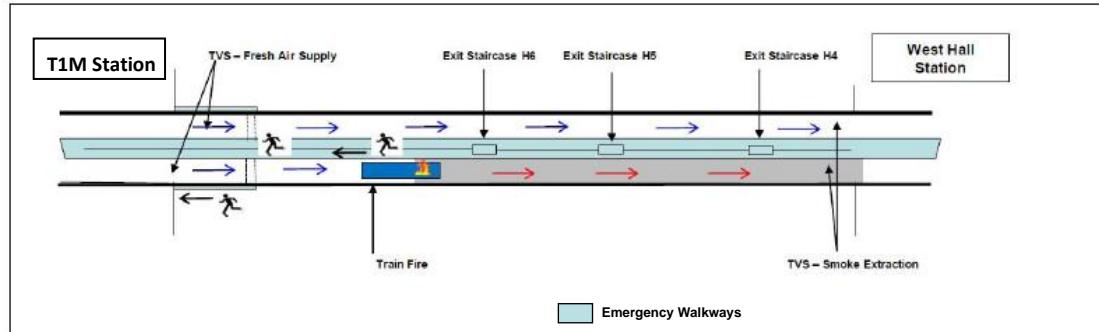
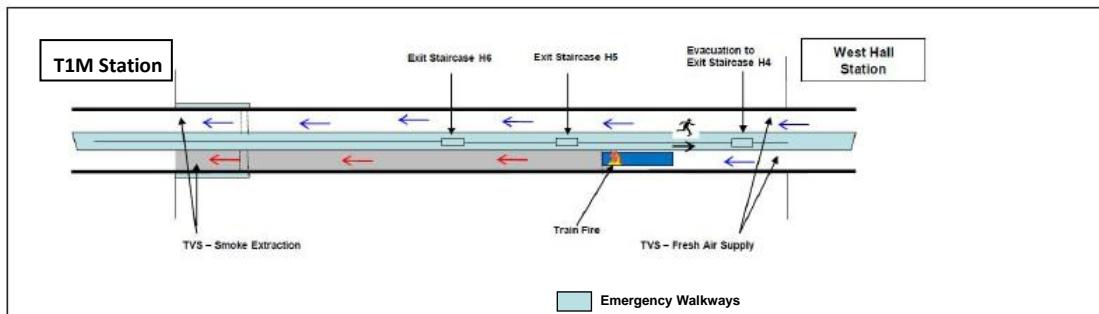
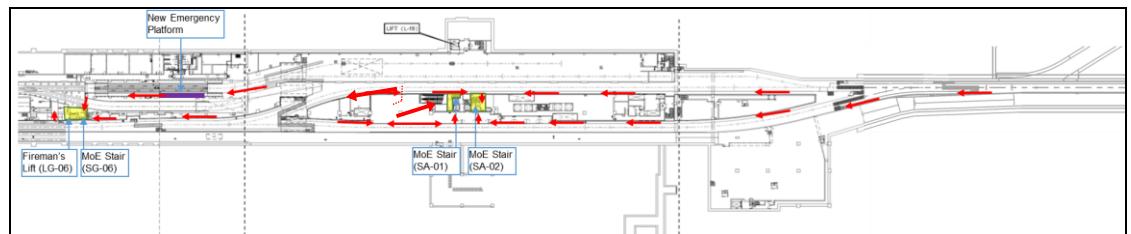


Figure 5 - Evacuation Scenario 4 - between WH and T1M



5.7 Evacuation between EH and Maintenance Depot

Figure 6 – Exit Staircase between EH and Maintenance Depot



6.0 Handling bomb threat

6.1 General guideline

Any bomb threat received must be treated as a real one unless there is strong evidence that it is only a mischievous trick.

6.2 Receiving threat by telephone

If a threat is received by telephone, the staff member shall:

- i. remain calm and talk to the caller in a neutral tone;
- ii. obtain as much of relevant information as possible;
- iii. report the details to APMAM immediately; and
- iv. provide assistance to the concerned parties in IAC when necessary.

6.3 Receiving threat in writing

- If a threat in writing is received by a staff member, he/she shall:
- i. forward the threat to APMAM immediately;
 - ii. report the details to APMAM and APMMC immediately; and
 - iii. provide assistance to the concerned parties in IAC when necessary.

7.0 Handling activation of Emergency Panel

7.1 Description of Emergency Panel

The Emergency Panel located at IAC and Central Control Room (CCR), which serves as a back up site, consists of four push buttons. If:

- i. vehicle Stop button is pressed, all trains on the guideway will be stopped with emergency brake applied.
- ii. emergency PDS Trip button is pressed, traction power for the main line will be switched off.
- iii. hold in Station button is pressed, all trains will be stopped at stations after platform duty.
- iv. emergency Stop button – Intermediate Stop (ESB-IS) is pressed upon activation of in-saloon smoke detector, RRL train stops at next pre-defined intermediate stop. There is no ESB-IS button for T1 line.

7.2 When to operate

- 7.2.1 When APMOC or relevant parties is working at Central Control Room or assisting to perform APM testing, he/she should operate the button on Emergency Panel without delay in the event of emergency (e.g. passenger injury on train at station, person fallen onto the track, switch failure, train collision on main line, fire).
- 7.2.2 If the Emergency Panel is operated, APMOC or relevant parties shall handle the incident by following respective procedures stated in Part B of this BCP-B1.

7.3 Resetting operated button

- 7.3.1 Before resetting, APMOC must obtain APMAM's confirmation and understand the status through ATS workstation.
- 7.3.2 APMOC shall reset any operated button on Emergency Panel by:

-
- i. inserting an appropriate key in the key switch;
 - ii. turning the key in clockwise direction; and
 - iii. removing the key from the key switch.

7.3.3 For resumption of traction power, in addition to resetting Emergency PDS Trip button, traction power must be switched locally in East Hall LV Switch Room, RRL Switch Room, T1M Switch Room ~ For T1 and RR Line or Switchgear room 1 (landside) and Switchgear room 2 (old Skyplaza platform) ~ For SkyPier Terminal Line.

8.0 Handling activated alarm

General guidelines listed in this topic should be used in conjunction with respective procedures in Part B and C of this BCP-B1.

8.1 Type and consequence of alarm

- 8.1.1 Alarms of APM system are divided into two types based on their source: major fault alarm (e.g. when train moves with door opened) and minor fault alarm (e.g. when redundancy fails).
- 8.1.2 If major fault alarm is activated, APM system will be disrupted immediately. With minor fault alarm, the system can continue to operate with no significant impact to the overall performance.

8.2 Handling major fault alarm

- 8.2.1 When a major fault alarm is activated, APMOC shall:
 - i. confirm with APMMC that Maintenance Technician will handle the fault;
 - ii. identify the source of fault; and
 - iii. rectify the fault immediately and follow the respective handling procedures.

8.3 Handling minor fault alarm

- 8.3.1 When a minor fault alarm is activated, APM Controller shall:
 - i. confirm with APMMC that Maintenance Technician will handle the fault;
 - ii. identify the cause of fault; and
 - iii. rectify the fault immediately/in due course and follow the respective handling procedures.

9.0 Handling Tripping Door Event in T1 Line, Route Recovery Line and SkyPier Terminal Line

Details refer to the Technical Procedure for Resumption of Service after APM Door or Swing Gate Activation, NTS-3602-G-1324-C.

C. System And Equipment Failure

1.0 Handling traction power failure

1.1 Failure occurs before service hours

When traction power cannot be switched on at the start of service, Maintenance Technician shall:

1.1.1 inform APMOC and APMMC;

1.1.2 arrange Maintenance Technician- to:

i. check the cause of failure;

ii. assess the expected time that traction power can be restored; and

iii. carry out emergency repair of any defective equipment.

1.1.3 when it is ready to restore the traction power, make sure that the guideway is clear of persons/tools and inform APMOC and APMMC.

1.2 Failure occurs during service hours

1.2.1 Partial failure

When there is a partial failure of traction power, APMOC shall confirm with APMMC to switch over to the unaffected supply at the related LV Switch Rooms which coverage T1 Line, SkyPier Terminal Line and Route Recovery Line (RRL) inclusive. If power supply changeover fails, he/she shall:

i. inform APMAM;

ii. maintain service as far as practicable; and

iii. inform APMMC to dispatch a Maintenance Technician to investigate the cause and handle the fault.

Non-emergency repair should be carried out during non-service hours as far as possible.

1.2.2 Total failure

When there is a total failure of traction power, APMOC shall:

i. inform IAC-TOD and/or IAC-LD;

ii. inform APMMC to dispatch a Maintenance Technician to:

- check the cause of failure;

- assess the expected time that traction power can be restored; and

- carry out emergency repair of any defective equipment.

- iii. if traction power:
 - can be restored, make sure that the guideway is clear of persons and tools and inform APMMC before switching on traction power; or
 - cannot be restored within 15 minutes, seek approval of APMAM to detrain passengers to the station/emergency walkway according to 1.3 in this section procedure.

1.3 Detraining passengers to emergency walkway

When detraining passengers to the emergency walkway is required, APMOC shall:

- 1.3.1 confirm that “Hold in Station” button and “Emergency PDS Trip” button on Emergency Panel have been triggered; and
- 1.3.2 inform APMMC to deploy a Maintenance Technician to apply earthing cables with proper Personal Protective Equipment (e.g. insulation gloves).

2.0 Handling signaling failure

2.1 Automatic Train Operation (ATO/CBTC) failure

2.1.1 Failure affecting one train

In the event that the failure affects only one train, APMOC shall:

- i. For detrainment
 - inform IAC-TOD or IAC-LD, if required, to detrain passengers at station; and
 - if the affected train is stopped between stations, arrange inform APMMC to deploy a Vehicle Operator to ride on the train and instruct him/her to manually operate the train to the appropriated station for detrainment.
- ii. After detrainment
 - inform the Vehicle Operator to manually operate the affected train to Maintenance Depot or to a location where automatic operation can be resumed; and
 - arrange a replacement train to enter into service.

2.1.2 Failure affecting all trains

If the failure affects all trains, APMOC shall:

- i. inform IAC-TOD or IAC-LD, if required, to detrain passengers at stations;
- ii. if the affected train is stopped between stations, inform APMMC to deploy Vehicle Operator to ride on the train and instruct him to manually operate the train to the appropriated station for detrainment;
- iii. inform APMMC to deploy Maintenance Technician to investigate the cause and restore the system to normal operation.

2.2 Train overshoots/undershoots the stopping position

2.2.1 Action for APMOC

When a train has overshot/undershot the stopping position at a station, APMOC shall:

- i. remote to align the vehicle via ATS as far as practicable (For CBTC only);
- ii. inform APMMC to deploy a Vehicle Operator to help passengers alighting; and
- iii. resume automatic operation of the train or arrange the train to return to Maintenance Depot/T&C Area for inspection.

2.2.2 Action for Vehicle Operator

After boarding the train, the Vehicle Operator shall:

- i. For train stopping within the access limit of platform doors
 - open the train doors and platform doors manually for passengers to alight.
- ii. For train stopping beyond the access limit of platform doors
 - move the train to the correct stopping position; and
 - open the train doors and platform doors manually for passengers to alight

3.0 Handling defective train

3.1 Train stalled between stations

3.1.1 Action for APMOC

When a train is stalled between stations due to a defect, APMOC shall:

- i. inform APMMC to dispatch Vehicle Operator to handle the incident;
- ii. inform the Vehicle Operator to check the defective train and drive the train manually;
- iii. if manual driving is not possible, arrange an assisting train to push/pull the defective train to Maintenance Depot/T&C Area/TB2; and
- iv. inform APMMC when the replacement train is ready for service.

3.1.2 Action for Vehicle Operator

When informed by APMMC, Vehicle Operator shall access the defective train via emergency walkway. Upon arrival, he/she shall:

- i. release the outside Emergency Cock and open the door manually;
- ii. operate the internal door manual release cock of the concerned door;
- iii. close the outside Emergency Cock;
- iv. enter the vehicle again via the opened door;
- v. resume the internal door manual release cock;
- vi. check the monitoring alarm code and report to the APMOC; and
- vii. attempt to rectify the fault

If the fault:

- a. can be rectified, Vehicle Operator shall obtain APMOC's authorisation to drive the train to the appropriated station for detrainment; or
- b. cannot be rectified, Vehicle Operator shall inform APMOC to arrange an assisting train to push/pull the defective train to Maintenance Depot/T&C Area/TB2. Subjected to the train consist to isolate the faulty unit and change the arrangement setting (see Appendix 1).

3.2 Detraining passengers to emergency walkway

When detraining passengers to the emergency walkway is required, APMOC shall:

- confirm that "Hold in Station" button and "Emergency PDS Trip" button on Emergency Panel have been triggered; and
- inform APMMC to deploy a Maintenance Technician to apply earthing cables.

3.3 Train stalled at station

When a train is stalled at a station due to a defect, APMOC shall:

- i. confirm that “Hold in Station” button on Emergency Panel has been triggered;
- ii. if required, to arrange a replacement train to pick up the detrained passengers;
- iii. inform APMMC to deploy a Vehicle Operator to drive the train manually to Maintenance Depot/T&C Area/TB2;
- iv. if the defective train cannot be moved, arrange an assisting train to push/pull the defective train to Maintenance Depot/T&C Area/TB2. Subject to the train consist to isolate and change the arrangement setting (see Appendix 1); and
- v. inform APMAM when the replacement train is ready for service.

3.4 Procedure for rescuing a defective train by an assisting train

3.4.1 Introduction

It is preferable to use an assisting train to push rather than pull the defective train, whenever possible, since the healthy train will not be blocked by the defective train after the rescue operation. Besides, the vehicle speed shall be restricted to less than 10kph during push/pull operation.

3.4.2 Action for Vehicle Operator on defective train

Vehicle Operator on the defective train shall:

Before coupling to the assisting train

- i. apply choke to the defective train if it is stalled at gradient;
- ii. set vehicle direction from the driver’s panel/by manual handle;
- iii. make sure that brake is applied and the train is at correct direction;
- iv. ensure “cut-out” mode is applied in both defective and assisting train
- v. ensure that “UNCOUPLE” light is illuminated; and
- vi. inform the Vehicle Operator of assisting train via trunk mobile radio that the defective train is ready for coupling.

Important Note: Remember to remove the choke after coupling.

During coupling to the assisting train

- i. the coupling vehicle should propel (both vehicles are set in right direction) max vehicle speed 5kph within the 10m.
- ii. the coupling vehicle should stop when distance was within 4m. Then the coupling vehicle should propel (both vehicles are set in right direction) again with max vehicle speed 2kph.
- iii. the coupling vehicle should stop when distance was within 1m. Then the coupling vehicle should propel (both vehicles are set in right direction) again with max vehicle speed 2kph until engage coupler.

After coupling to the assisting train

- i. release brake by operating brake isolating cocks (BC1 and BC2) at the floor panel;
- ii. make sure that Main Reservoir Pressure reads more than 0.5 MPa; and
- iii. standby the brake isolating cocks (BC1 and BC2) during push/pull operation by the assisting train.
- iv. A pull-out test shall be carried out to ensure that the coupling has been done properly.

Important Note: If the Main Reservoir Pressure of the defective train is lower than 0.5 MPa, then it is necessary to release the parking brake manually and propel the defective train in loose-shunting. Under this situation, caution must be taken to prevent accidental train movement.

3.4.3 Action for Vehicle Operator on assisting train

When informed that the defective train is ready for coupling, Vehicle Operator on assisting train shall:

- i. ensure that “UNCOUPLE” light is illuminated; and
- ii. drive the train towards and couple with the defective train.

When coupling is finished, the assisting train shall push/pull the defective train to the Maintenance Depot/T&C Area/TB2. Subject to the train, consist to isolate and change the arrangement setting (see Appendix 1).

3.4.4 Communication during pushing out/pulling out

Vehicle Operator of defective train shall reach a complete understanding with the Vehicle Operator of assisting train.

When giving instruction for pushing out/pulling out, Vehicle Operator in front must repeat “Proceed” at a 3-5 second interval to the Vehicle Operator at rear via mobile radio. Vehicle Operator of assisting train must stop the train if no “Proceed” message is received in 5 seconds. As soon as the defective train is likely to move, Vehicle Operator of the defective train shall set the brake isolating cocks to normal.

3.5 Procedure for assisting train to push a defective train to TB2

3.5.1 Action for Vehicle Operator on assisting train

- i. Keep the train speed less than 10kph during rescue operation.
- ii. Ready to stop the consist when observing “Ready to Stop” board (as shown in Appendix 2) on the wall of emergency walkway from leading cab.
- iii. Stop the consist immediately when:
 - the communication with Vehicle Operator on defective train is lost, or
 - receiving request from Vehicle Operator on defective train
- iv. Before coupling the defective train in TB2, obtain authorisation from APMOC and make sure that the brake on defective train is applied properly.
- v. Before driving assisting train away from TB2, obtain authorisation from APMOC.

3.5.2 Action for Vehicle Operator on defective train

- i. Give enough instructions to the Vehicle Operator on the assisting train as the consist is approaching the end of TB2.
- ii. Before the defective vehicle is uncoupled from the assisting train in TB2 with APMOC’s authorisation, normalize the brake isolating cocks on defective vehicle and make sure that brake is applied on the vehicle properly.

- iii. Switch off saloon lights on the vehicle after the defective vehicle is uncoupled from the assisting train.
 - iv. Obtain APMOCs authorisation and leave the TB2 via emergency platform.
- 3.5.3 Action for APMOC after the defective train is stabled in TB2
- i. Confirm that:
 - the consist has stopped at the correct position and the assisting train has uncoupled from the defective train;
 - brake on the defective train has been applied after uncoupling;
 - Vehicle Operator on the defective train has left the refuge siding;
 - Vehicle Operator on the assisting train has been authorized to drive the train away from the refuge siding when situation permits; and
 - apply close track in TB2 after the assisting train has left the area.
 - ii. Post notice board on the control console to remind that a defective train is stalled in TB2.
 - iii. Ensure that does not set the system routing via TB2 except the defective train has withdrawn from TB2.
- 3.5.4 Action for APM Maintenance Manager after the defective train is stabled in TB2
- i. Alert Maintenance Team and APMMC that a defective train is outstable during changing shift.
 - ii. Request Maintenance Team and APMMC to arrange the defective train to return to depot at the end of daily service.
- 3.6 Train moving with door(s) opened
- When APMOC receives a notice or an alarm indicating that a train door is opened while the train is in motion, he/she shall:
- 3.6.1 if there is nothing abnormal:
- inform APMMC to dispatch a Vehicle Operator to investigate the incident and assist APMOC to restore the train to automatic operation when it arrives at the next station.
- 3.6.2 if a train door is confirmed opened:

- inform APMMC to dispatch a Vehicle Operator to investigate the incident and conduct track inspection to ensure that no person or object has fallen onto the track;
- inform APMAM; and
- when everything resumes normal, arrange the Vehicle Operator to drive the train in restricted mode to Maintenance Depot for further investigation.

3.7 Flat tyre

3.7.1 Symptom

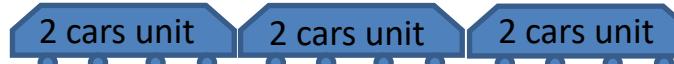
Bumpy / sluggish movement of the APM

3.7.2 Handling procedure

In the event of flat tyre, APMOC shall:

- arrange a replacement train to enter into service; and
- inform APMMC to deploy a Vehicle Operator to drive the train in manual mode to Maintenance Depot/T&C Area.

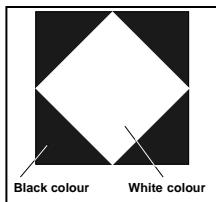
Appendix 1: Train arrangement for MHI-CM, IHI-old, IHI-new and NTS

Vehicle type	Vehicle number	Train consist	On-board arrangement setting (Apply to A car or Mc1)	Remark
IHI-new NTS	IHI new: V10 – V17 NTS: V18 – V25		D Type	
			A + C Type	
			A + B + C Type	
IHI-old IHI-new MHI-CM NTS	IHI old: V5 – V7 IHI new: V10 – V17 MHI-CM: V8 & V9 NTS: V18 – V25		1 or D Type	1 apply to MHI-CM D apply to IHI-old
			A + B or C Type	B apply to east side MHI-CM or C apply to 4 car IHI/NTS, A apply to 2 car
			A + C Type	A apply to west side 4 car and C apply to 2 car

← West → East

* Isolate the defect unit and coupling with a healthy unit by mechanical coupling when rescue operation.

Appendix 2: The diagram below shows the Ready to Stop board.



4.0 Handling equipment failure

4.1 Train door failing to open

- 4.1.1 When APMOC learns that some or all doors of a train fail to open, he/she shall:
- i. inform APMMC to deploy a Maintenance Technician to inspect the defective train doors and try to fix the defect;
 - ii. advise APMAM of the situation and update him/her of the expected time of delay when this is available;
 - iii. if the defect cannot be fixed within 15 minutes:
 - detrain passengers;
 - partially suspend train service;
 - arrange a spare train for replacing;
 - inform concerned parties in IAC; and
 - iv. resume train service after completing the repair work or replacing train.

4.2 Train door failing to close

- 4.2.1 When APMOC learns that some or all doors of a train fail to close, he/she shall:
- i. inform APMMC to deploy a Maintenance Technician to inspect the defective train doors and try to fix the defect;
 - ii. advise APMAM of the situation and update him/her of the expected time of delay when this is available;
 - iii. if the defect cannot be fixed within 15 minutes:
 - detrain passengers;
 - partially suspend train service;
 - arrange a spare train for replacing;
 - inform concerned parties in IAC; and
 - iv. resume train service after completing the repair work or replacing train.

4.3 Platform door failing to open

- 4.3.1 When APMOC learns that the platform doors of a station fail to open, he/she shall:
- i. inform APMMC to deploy a Maintenance Technician to inspect the platform doors and try to fix the defect at station;
 - ii. advise APMAM of the situation and update him/her of the expected time of delay when this is available;
 - iii. if the defect cannot be fixed within 15 minutes:
 - detrain passengers;
 - suspend train service;
 - inform concerned parties in IAC; and
 - iv. resume train service after completing the repair work.

4.4 Platform door failing to close

- 4.4.1 When APMOC learns that the platform doors of a station fail to close, he/she shall:
- i. inform APMMC to deploy a Maintenance Technician to inspect the platform doors and try to fix the defect at station;
 - ii. advise APMAM of the situation and update him/her of the expected time of delay when this is available;
 - iii. if the defect cannot be fixed within 15 minutes:
 - detrain passengers;
 - suspend train service;
 - inform concerned parties in IAC; and
 - iv. resume train service after completing the repair work.

4.5 Communication equipment failure

4.5.1 Communication equipment failure on a train

In the event of failure of a train's on-board PA system and intercom, APMOC shall:

- inform APMMC to deploy a Maintenance Technician equipped with a mobile radio to ride on the affected train until the PA system and intercom resume normal working; and
- arrange a replacement train as soon as possible.

4.5.2 Total communication failure

If the cause of the problem is resulting in total communication failure with all trains, APMOC shall:

- control the communication at Backup Control Room if necessary;
- inform APMMC to deploy a Maintenance Technician equipped with a mobile radio to ride on the affected train(s) to check whether communication can be temporarily resumed;
- if it can be resumed, request Maintenance Technician to repair the communication system; and
- if it cannot be resumed, inform APMMC to deploy additional Maintenance Technicians equipped with mobile radios to ride on other affected trains until the PA system and intercom resume normal working.

D. Incident involving flooding

The handling procedure of incident involving flooding, APMOC shall refer to Part B section 3.4. Other actions include:

- i. To evaluate the situation by e.g. inspecting the flooding scene or other possible methods if there is a concern on the safe access to the flooding scene; and
- ii. To keep APMOC and APMMC informed on impact of APM System by the flooding periodically. Report and record for any equipment failure which is caused by flooding to above mentioned parties / personnel at once.

1.0 Handling flooding at a station

- 1.1 When there is flooding which may affect the station and APM operation, APMOC shall notify APMMC to follow up by following the procedure below.

Step	Action
1	IAC-TOD or IAC-LD requests APMOC to suspend the APM service.
2	AMPOC shall stop all the trains at the nearest stations, and notify APMMC to deploy Maintenance Technicians when required, to assist AA staff on site in the detrainment at stations. Upon the completion of the detrainment, APMOC shall notify APMMC, the APMMC shall proceed to trip the traction power supply and arrange earthing cable connection (if tunnel is safe to access). All people including staff shall evacuate from tunnels to safety as soon as possible.
3	Maintenance technician shall coordinate with other related parties to rectify the abnormalities.
4	Maintenance technician shall perform APM system equipment function test and APMOC shall inform IAC-TOD or IAC-LD that APM system is fit for service upon completion.

2.0 Handling flooding at tunnel

- 2.1 When there is a flooding at tunnel, APMOC shall notify APMMC to follow up by following the procedure below.

Step	Action
1	APMOC reports to IAC-TOD or IAC-LD and APMMC reports to FRTMO the location of flooding.
2	<p>If IAC-TOD or IAC-LD approves to carry out the tunnel inspection during the traffic hours, APMOC shall notify APMMC to arrange Maintenance Technician to the location of flooding. If the flooding is severe, Maintenance Technician also on board of vehicles for continuous monitoring of flooding situation.</p> <p>Maintenance technician shall check the following at the flooding scene and reports to APMOC and APMMC:</p> <ul style="list-style-type: none"> • Location of the flooding • Water/mud level • Source of water/mud, if possible • Any abnormalities
3	Maintenance technician shall monitor and update APMOC and APMMC the latest status periodically (every 10 minutes or when any abnormalities occur).
4	<p>If the water level is above the plinth surface, APMOC shall inform IAC-TOD or IAC-LD about the flooding situation at tunnel and obtain their consent to suspend APM service.</p> <p>After obtaining approval from IAC-TOD or IAC-LD, if the trains are able to stop at the nearest stations, go to step 5, 8 and 9. if the trains are not able to stop at the nearest stations, go to step 6-9.</p>
5	<p>APMOC shall stop all the trains at the nearest stations, and notify APMMC to deploy Maintenance Technicians when required, to assist AA staff on site in the detrainment at stations. All people including staff shall evacuate from tunnels to safety as soon as possible.</p> <p>Upon the completion of the detrainment, APMOC shall proceed to trip the traction power supply by pressing the “Emergency PDS Trip” and notify APM Maintenance Controller.</p>
6	APMOC shall trip the traction power supply by pressing the “Emergency PDS Trip” button and notify APMMC. Then, APMOC shall make PA announcement in

	Cantonese, English and Putonghua to instruct the onboard passengers to perform emergency evacuation inside tunnel and advise them on the evacuation direction.
7	APM Controller shall assist concerned parties in IAC in the evacuation of passengers inside tunnel. All people including staff shall evacuate from tunnels to safety as soon as possible.
8	Maintenance Technician shall coordinate with other related parties to rectify the abnormalities.
9	Maintenance Technician shall perform APM system equipment function test and APMOC shall inform IAC-TOD or IAC-LD that APM system is fit for service upon completion.

3.0 Handling flooding in Depot

- 3.1 When there is a flooding in Maintenance Depot/T&C Area, APMOC and APMMC shall follow up by following the procedure below.

Step	Action
1	APMMC reports to APMOC the location of flooding.
2	APMMC shall arrange Maintenance Technician to inspect the site for any equipment damage caused by flooding and any service interruption that will be caused to the APM service. Maintenance Technician shall check the following at the flooding scene: <ul style="list-style-type: none">• Location of the flooding• Water/mud level• Source of water/mud, if possible• Any abnormalities
3	Maintenance Technician shall monitor and update APMMC and APMOC the latest status periodically (every 10 minutes or when any abnormalities occur).
4	If the water level reached the full height of the Light Maintenance Pit and CCR is identified to be non-operational, APMMC shall communicate with the APMOC at IAC for the depot evacuation.

5	APMOC shall inform IAC-TOD or IAC-LD about the flooding situation at depot.
6	Depot evacuation shall be performed.
7	Maintenance Technician shall coordinate with other related parties to rectify the abnormalities.
8	APMMC shall update the situation of depot and inform APMOC for resumption of depot.
9	APMOC shall inform IAC-TOD or IAC-LD about the resumption of depot.

4.0 Handling flooding in IAC

- 4.1 When there is a flooding in IAC, APMOC and APMMC shall follow up by following the procedure below.

Step	Action
1	APMOC reports to APMMC of the flooding.
2	If IAC is identified to be non-operational, APMOC shall communicate with the APMMC at CCR about the flooding condition of CCR.
3	If CCR is not flooded, go to step 4. If CCR is flooded, go to step 5-9.
4	If no flooding is found at CCR, APMOC shall perform IAC evacuation and APM control changeover from IAC to CCR upon the approval from ADM. If CCR is found flooded after changeover to CCR, go to step 5, 6, 8 and 9.
5	If flooding is found at CCR, APMOC shall inform IAC-TOD or IAC-LD about the flooding situation to obtain their consent to suspend APM service.
6	After Approval received from IAC-TOD or IAC-LD, APMOC shall stop all the trains at the nearest stations and assist IAC-TOD or IAC-LD the detrainment at stations. Upon the completion of the detrainment, APMOC shall notify APMMC to trip the traction power supply and

	arrange earthing cable connection (if tunnel is safe to access).
7	Depot evacuation shall be performed.
8	Maintenance Technician shall coordinate with other AA-TSSD/TSOD/ITD's maintenance team(s) via APMMC and FRTMO to rectify the abnormalities.
9	Maintenance Technician shall inform APMMC the completion of rectification works and APMOC shall inform IAC-TOD or IAC-LD that APM system is fit for service upon completion.

E. Service Suspension

The handling of APM service suspension of T1 Line, Route Recovery Line and SkyPier Terminal Line shall refer to TLPM/006 for detailed arrangement. Regarding to the emergency bonded bus, non-operating hours handling and APM outage backflow of SkyPier Terminal shall refer to TLPM/086 for detailed arrangement.

End of BCP – B1

Business Continuity Manual

Business Continuity Plan: B2

Crowd Management

		Signature	Revision	Effective Date
Updated By	Assistant General Manager TOD	 Joanne Ma		
Reviewed By	Assistant General Manager BCP, SSBC	 Emily Chu	34	Nov 2023
Approved By	General Manager SSBC	 David Jea		

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A. T1 LANDSIDE CROWD MANAGEMENT

1.0 Purpose

1. The Landside Crowd Management Procedure stipulates the strategy and procedure in passenger handling during airport disruptions when massive number of affected passengers is observed in the landside area of Terminal 1 (T1) by the Airport Authority (AA) and relevant stakeholders to ensure a smooth operation.
2. The following T1 Landside Crowd Management procedures are extracted from the TOD source document “Terminal & Landside Procedures Manual No. TLPM/081 Landside Crowd Management Procedure”.
3. The extracted material contained in this BCM will be updated as and when the source document is updated.

2.0 Scope

1. This Procedure focuses on the application of crowd management measures within T1 landside area during emergency by AA.
2. Other associated parties shall carry out their own procedure / operation manual as appropriate.

3.0 Background

1. Adverse weather can bring serious disruptions to the airport.
2. The passage of Typhoon Prapiroon from 03 to 05 August 2006 in Hong Kong had caused serious flight disruptions at the airport leading to 381 cancelled flights, 725 delayed flights and over 100,000 passengers stranded.
3. Continuous improvements and closer coordination amongst airlines, ground handling agents, Police, AVSECO, AA and other major stakeholders has resulted in these crowd management measures.
4. These measures, discussed with and agreed to by all involved stakeholders, are regularly drilled on an annual basis since 2007.

4.0 Roles and Responsibilities

4.1 Airport Authority

1. **Integrated Airport Centre (IAC)** - Airport Duty Manager (ADM) is responsible to :
 - a. Activate the Procedure when substantial number of affected passengers is anticipated / observed in T1 landside area as a result of flight irregularities / airport disruptions / adverse weather conditions.
 - b. Activate the Airport Emergency Centre (AEC), if necessary.
 - c. Alert airlines / ground handling agents to prepare for their own activation of internal procedures as deemed necessary.
 - d. Collate, streamline and approve requests from airlines / ground handling agents (GHAs) for crowd management assistance.

- e. Make discretionary decision in allocating airlines / GHAs to respective zone(s) of Contingent Passenger Handling area and/or Contingent Check-in area(s) in Transition Deck as deemed necessary.
 - f. Oversee and manage the crowding situation in T1 landside area such as Check-in Hall, Transition Deck, M&G Hall etc.
 - g. Working through the AEC, coordinate with AVSECO in meeting any additional manpower requirements from airlines / GHA's since it is anticipated that airlines / GHA's may have ad hoc manpower demands in addition to those already listed in their existing crowd management plans.
 - h. Consult with GM-Terminal Operations Department on the necessity to activate the Passenger Care Team (PCT).
 - i. Stand down the Procedure in due course when real time situation warrants.
2. **IAC-Terminal Operations Department (TOD)** - Terminal and Landside Duty Manager (TLDM) is responsible to :
- a. Alert ADM when substantial number of affected passengers is anticipated / observed in T1 landside area as a result of flight irregularities / airport disruptions / adverse weather conditions.
 - b. Inform ADM and alert the following parties to activate respective handling procedure as appropriate :
 - i. Executive Director, Airport Operations
 - ii. Deputy Director, Airport Operations
 - iii. General Managers, TOD and LD
 - iv. Assistant General Managers, TOD and LD
 - v. Chief Corporate Affairs Officer, CAF
 - vi. Managers TOD-TOGF, LD-Landside Services and ABD
 - vii. Assistant General Managers, Retail & Advertising
 - viii. Immigration Department
 - ix. Customs and Excise Department
 - x. HK Police
 - xi. MTR
 - xii. St John Ambulance
 - xiii. FRTMO TSI
 - xiv. AVSECO Duty Manager
 - c. If AEC is activated, assist ADM to alert the following organizations / units to send a representative to AEC to act as liaison :
 - i. Airline Operators Committee (AOC) / Ground Handling Agents
 - ii. Immigration Department
 - iii. Customs and Excise Department
 - iv. HK Police

- v. AVSECO
 - vi. AA internal parties
- d. Process the form “Requisition for Contingent Passenger Handling Area at Transition Deck Terminal 1” (see **Attachment TLPM/081/01**) as appropriate upon receipt from airlines / ground handling agents
 - e. Coordinate with airlines / ground handling agents, AVSECO on setup of crowd management facilities and subsequent emergency responses.
 - f. Coordinate with airlines/ ground handling agents and arrange relevant parties to mobilize disruption ticketing machine and setup of ticket display panels upon receipt of request.
 - g. Alert MTR (Airport Station Control Room) on the setup of crowd management facilities.
 - h. Coordinate with MTR on:
 - i suspension of south or north link bridge at departure AEL platform as appropriate.
 - ii the needs to suspend lifts A6 and A27 at north and A4 and A26 at south of AEL Airport Station.
 - i. Alert St. John Ambulance for manning of the First Aid Post when required.
 - j. Liaise with airlines and AA-TSI on crowd management facilities at check-in aisle, up-ramps and Transition Deck as per Section 5.0.
 - k. Arrange with AA-TSI to :
 - i suspend the operations of Level 8 Departure Kerb Lobby 1
 - ii suspend south escalators E12 and E13 (linking L5 Meeters and Greeters Hall and L6 Transition Deck), E14 and E15 (linking L5 Meeters and Greeters Hall and L7 Check-in Hall).
 - iii suspend north escalators E3 and E4 (linking L5 Meeters and Greeters Hall and L7 Check-in Hall), E5 and E6 (linking L5 Meeters and Greeters Hall and L6 Transition Deck).
 - iv suspend T1 Level 7 access from the south via lifts:
 - L30, linking L3 Cheong Tat Road, Levels 5 and 7.
 - L32 and L33, linking Levels 5, 6 and 7.
 - C5, C6 and C7, linking Level 3 Car Park 1, Levels 5 and 7.
 - v suspend T1 Level 7 access from the north via lifts:
 - L11, linking Level 3 Cheong Tat Road, Levels 5 and 7
 - vi suspend lift C3 (disable lift linking Level 3 Cheong Tat Road to L6 Transition Deck).
 - vii deploy disruption ticketing machines and ticket display panels to the assigned locations as per Attachment **TLPM/081/10**.
 - I. Assist the affected passengers with airport information and basic welfare (water, blankets).

- m. Arrange the PCT setup should the Team be called out.
 - n. Arrange with cleaning contractor to ensure the in-terminal cleanliness.
 - o. Arrange with the landside trolley contractor for timely replenishment/retrieval of trolleys at AEL departure platform, Check-in Hall and pre Departure Immigration Hall.
 - p. Monitor real-time situation to ensure compliance with prescribed safety and service standards.
3. **Technical Services Infrastructure Department (TSI)** is responsible to :
- a. Assist to setup temporary serpentines at check-in aisle, up ramp and Transition Deck as per Section 5.0.
 - b. Assist the PCT setup should the Team be called out.
 - c. Assist the St. John Ambulance First Aid Post setup as per **Attachment TLPM/081/07**.
 - d. Prepare the temporary signage as appropriate to facilitate passenger way-finding.
4. **System Operations Control Centre (SOCC)** is responsible to:
- a. Arrange ARINC Incorporated (ARINC) to set up 14 sets of CUTE equipment at the contingent check-in areas with a 3-hour response time as and when required.

4.2 Airlines / Ground Handling Agents

The Airlines / Ground Handling Agents are responsible to:

- a. Liaise with AA ADM to activate the procedure when substantial number of affected passengers is anticipated.
- b. Activate their own crowd management procedures and deploy resources accordingly.
- c. Submit the form “Requisition for Contingent Passenger Handling Area at Transition Deck Terminal 1” (see **Attachment TLPM/081/01**) to IAC-TOD to request for activation of crowd management measures and set up of disruption ticketing machine and associated ticket display panels
- d. Prepare setup and manpower ready for deployment as contingency.
- e. Liaise with AVSECO on the positioning and manning of the access/egress at designated serpentines as per existing airline / GHA crowd management plans.
- f. Request for additional / ad hoc manpower requirements will need to be brought up at the AEC to ensure a balanced, resources re-allocation plan amongst all users.
- g. Deploy staff to assist passengers at designated serpentines with flight information.

- h. Prepare and display necessary signage at the appropriate locations to ease affected passengers' way-finding.
- i. Submit the form "Requisition for Contingent Passenger Handling Area at Transition Deck Terminal 1" (see **Attachment TLPM/081/01**) to IAC-TOD to request for stand down of crowd management measures.

4.3 AVSECO

The AVSECO Duty Manager is responsible to :

- a. Deploy staff to control and screen the access and egress of designated serpentines at check-in aisle, up-ramps and Transition Deck as requested by the respective airline / ground handling agent.
- b. Requests for additional / ad hoc manpower will need to be discussed with the ADM/AEC to ensure a balanced, resources re-allocation plan amongst all users.
- c. Only passengers of the affected airline will be allowed to join the queue.
- d. Manage the passenger flow within the respective serpentines at check-in aisle, up-ramps and Transition Deck.
- e. Manage the passenger flow with proper equipment / aids when affected passengers proceed from one designated serpentine to another at check-in aisle, up ramp or Transition Deck with due consideration to cross movement.

5.0 Crowd Management Setup Plan

When there is massive number of affected passengers at T1 landside area, the Procedure will be implemented at strategic locations primarily in the vicinity of Check-in Hall and Transition Deck areas with core airport operations to facilitate an orderly crowd management. Crowd management measures at other areas within T1 landside such as M&G Hall etc. should also be executed as and when necessary.

5.1 Crowd Management Setup Measures

The following designated areas in T1 landside will be utilized for crowd management:

- a) Location 1:
 - Check-in aisles at L7 Departures Level Check-in Hall (see **Section 6.2.1**).
 - passengers eligible to access the Location to be decided by airlines / ground handling agents.

b) Location 2:

- Up-ramps to Check-in Hall at L7 Departures Level (see **Section 6.2.2**).
- passengers eligible to access the Location to be decided by airlines / ground handling agents.

c) Locations 3, 4 and 5:

- Transition Deck (see **Section 6.2.3**)
- passengers eligible to access the Location to be decided by airlines / ground handling agents.

d) Contingent Check-in Areas:

- The areas near Lobby 2 and Lobby 3 of L6 Transition Deck (see **Section 6.2.4**) act as contingent check-in areas.
- activated by AA as per request by affected airlines / ground handling agents.
- TLDM or his/her delegate to call SOCC hotline (2182-0030) to arrange installation of 14 CUTE equipment when necessary.

5.2 Designated Locations in Terminal 1 Landside Area

1. Check-in Aisles

Check-in aisles to be cordoned off with serpentine setup and controlled access for ease of affected passengers' movement.

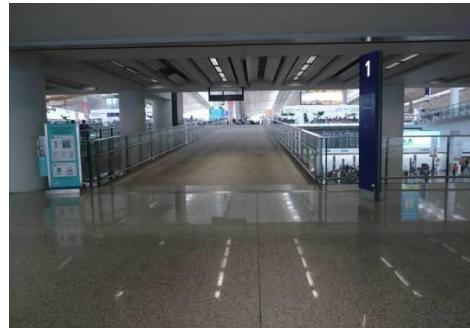


Location of Check-in Aisles at L7 Departures Level Check-in Hall

2. Up-ramps to Check-in Hall

The up-ramps linking L7 Departure Level and L6 Transition Deck to be partially cordoned off for:

- i additional queuing with controlled access,
- ii ease of affected passengers' movement,
- iii see **Attachment TLPM/081/02** for details.

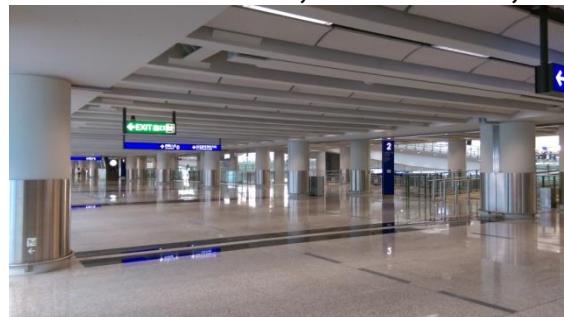


Location of Up-ramp Area L7 Departures Level and L6 Transition Deck

3. Transition Deck

The Transition Deck to be cordoned off for:

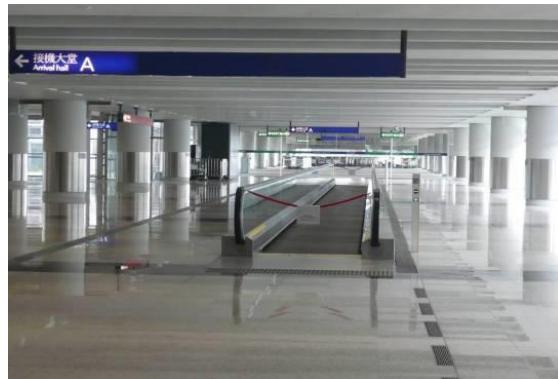
- i Additional queuing with serpentine setup and controlled access,
- ii Ease of affected passengers' movement,
- iii See **Attachment TLPM/081/03, TLPM/081/04, TLPM/081/05** for details.



**Location of Transition Deck between L7 Departures Level and Arrival AEL Platform
– Zone 1 & 2 (Related to Aisles A to C)**



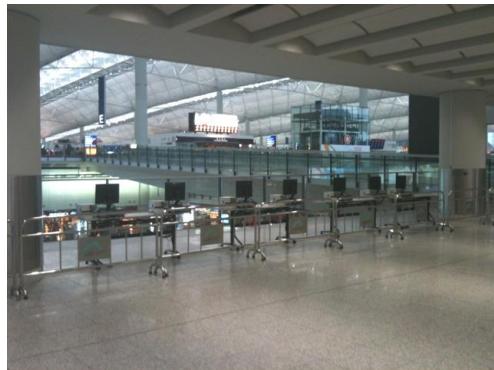
**Location of Transition Deck between L7 Departures Level and Arrivals AEL Platform
– Zone 3 (Related to Aisles D to G)**



Location of Transition Deck between L7 Departures Level and Arrival AEL Platform – Zone 4 (Related to Aisles H to L)

4. Contingent Check-in Areas

The areas near Lobby 2 and Lobby 3 of L6 Transition Deck equipped with 7 sets of CUTE system respectively provide contingent check-in service except bag drop. See **Attachment TLPM/081/06** for details.



**Location of Contingent Check-in Areas
at L6 Transition Deck near Lobby 2 or Lobby 3**

5.3 Signage

Information signage will be placed at entrance of respective serpentine whereas directional signage will be placed at designated locations of the Transition Deck / Up-ramps as appropriate. The signage to ease wayfinding of stranded passengers will be displayed on pull-up banner. See **Attachment TLPM/081/08** and **Attachment TLPM/081/09** for details.

5.4 Disruption Ticketing System

The disruption ticketing system will be used to manage the passenger waiting and queuing process for better crowd control management. Passengers can check the processing status of the tickets from time to time at display panels at various locations inside the terminals or via mobile channels.

The disruption ticketing system will be set up upon eligible airlines/ ground handling agents' request of activation to TLDM/ IAC. See **Attachment TLPM/081/10** for details.

6.0 Attachments

1. TLPM/081/01 Requisition for Contingent Passenger Handling Area at Transition Deck Terminal 1
2. TLPM/081/02 Up-ramp to Check-in Hall Setup
3. TLPM/081/03 Transition Deck Setup – Zone 1 & 2 (Related to Aisles A to C)
4. TLPM/081/04 Transition Deck Setup – Zone 3 (Related to Aisles D to G)
5. TLPM/081/05 Transition Deck Setup – Zone 4 (Related to Aisles H to L)
6. TLPM/081/06 Contingent Check-in Area
7. TLPM/081/07 St. John Ambulance First Aid Post at T1 Departures Hall
8. TLPM/081/08 Signage at Entrance of Respective Serpentine
9. TLPM/081/09 Location Plan of Signage
10. TLPM/081/10 Location of Disruption Ticketing Display Panels
11. TLPM/081/11 Landside Crowd Management Setup Reference Plans

1. Attachment TLPM/081/01



Requisition for Contingent Passenger Handling Area at Transition Deck Terminal 1

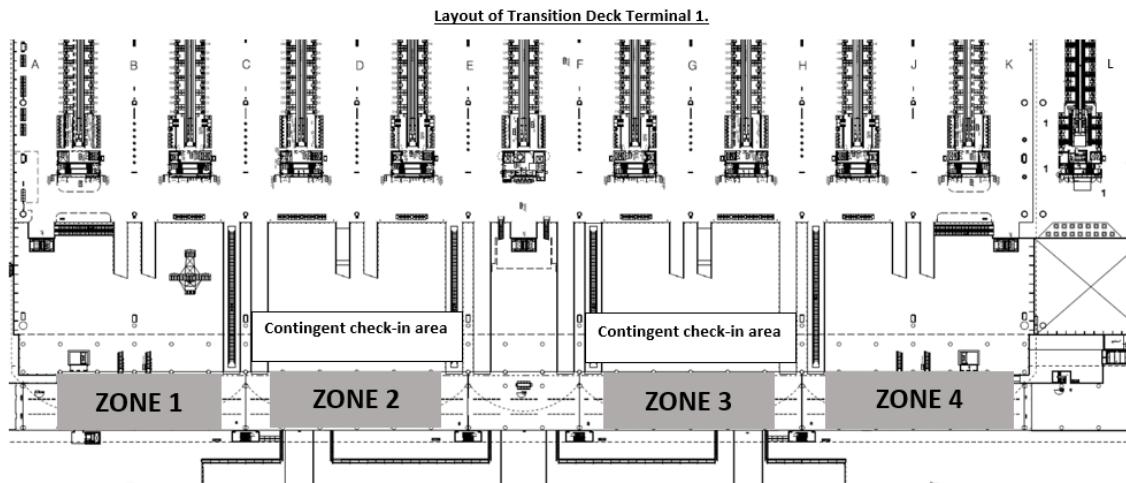
To: AA, IAC - TOD
Fax: 2182 2075 Tel: 2181 8110

Version: March 2023



Attachment TLPN/081/01

Requisition for Contingent Passenger Handling Area at Transition Deck Terminal



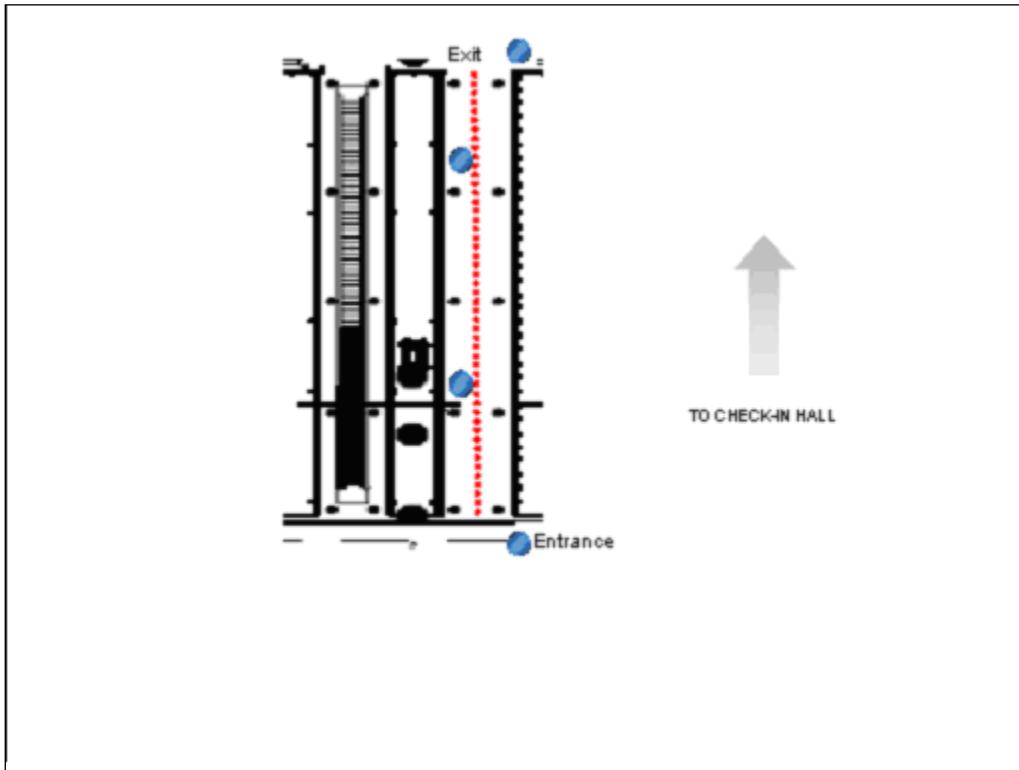
Version 2

Page 2 of 2

Effective Date: Nov 2019

2. Attachment TLPM/081/02

Up-ramp to Check-in Hall Setup



Location

Up-ramp Area to L7 Check-in Aisles

Resources Required

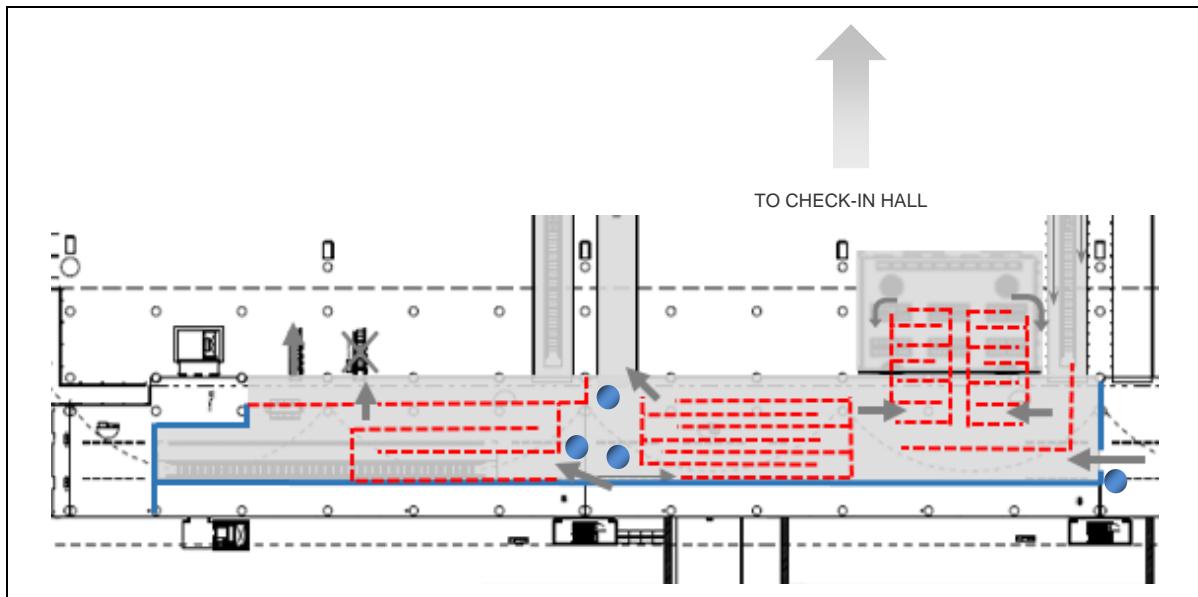
.....	Tensile barriers	Approximately 25 pcs
●	AVSECO staff	4

Holding Capacity

No. of queuing rows	1 (with minimum width of 1 metre)
Holding capacity of each row	45 trolleys for long row (each with 1.5 tiles of standing area)
Trolleys queue-able inside magazine	45 trolleys

3. Attachment TLPM/081/03

Transition Deck Setup – Zone 1 & 2 (Related to Aisle A-C)



Location

L6 Transition Deck (Aisle A-C)

Resources Required

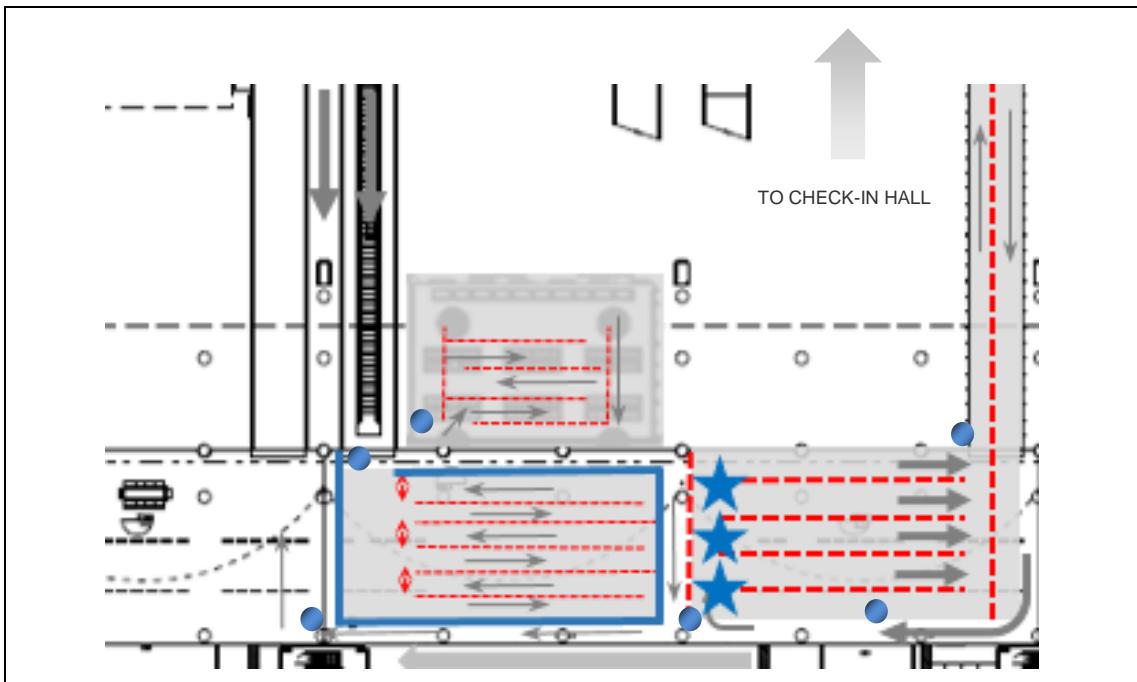
.....	Tensile barriers	Approximately 270 pcs
●	AVSECO staff	4

Holding Capacity

No. of queuing rows	5-6 (with minimum width of 1 metre)
Holding capacity of each row	20 trolleys for short row
	30 trolleys for long row
	(each with 1.5 tiles of standing area)
Trolleys queue-able inside magazine	180 trolleys

Attachment TLPM/081/04

Transition Deck Setup – Zone 3 (Related to Aisles D to G)



Location

L6 Transition Deck (Aisles D to G)

Resources Required

..... Tensile barriers Approximately 135pcs

● AVSECO staff 6

Holding Capacity

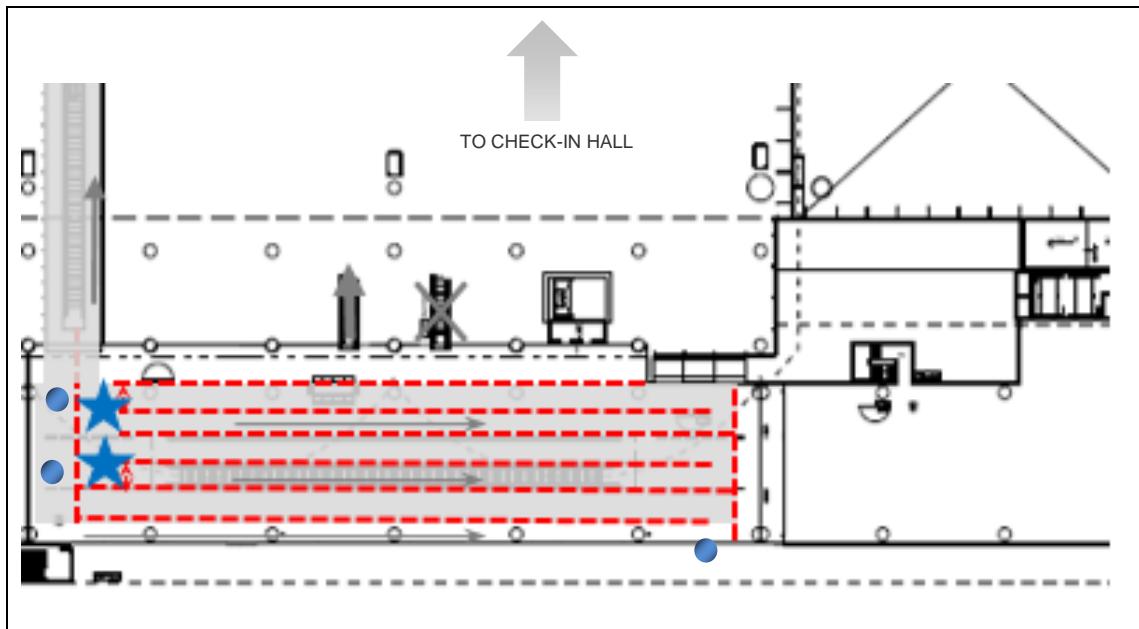
No. of queuing rows 6 (with minimum width of 1 metre)

Holding capacity of each row 21 trolleys for each row
(each with 1.5 tiles of standing area)

Trolleys queue-able inside magazine 126 trolleys

4. Attachment TLPM/081/05

Transition Deck Setup – Zone 4 (Related to Aisles H to L)



Location

L6 Transition Deck (Aisles H to L)

Resources Required

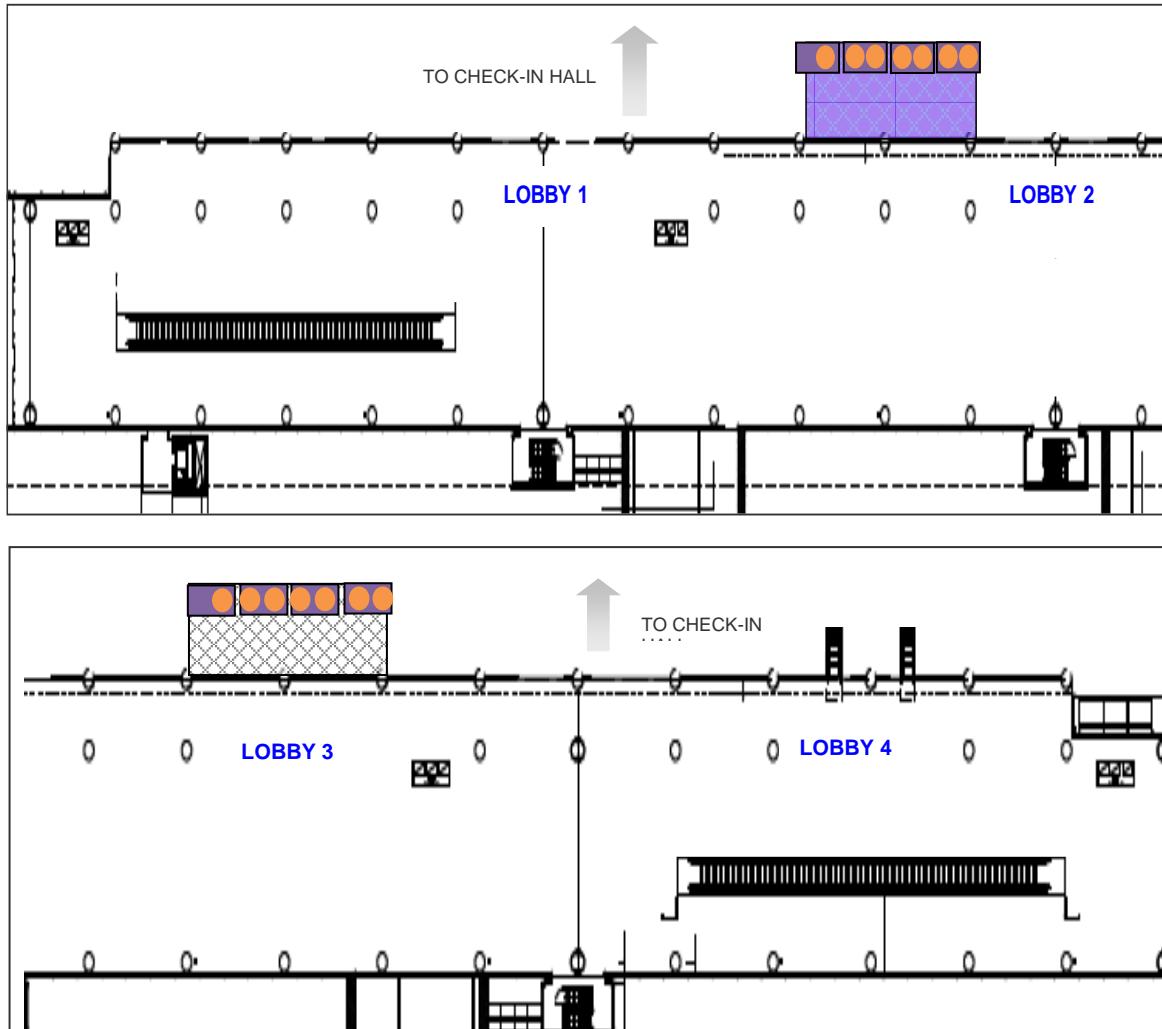
.....	Tensile barriers	Approximately 135pcs
●	AVSECO staff	3

Holding Capacity

No. of queuing rows	6 (with minimum width of 1 metre)
Holding capacity of each row	21 trolleys for each row (each with 1.5 tiles of standing area)
Trolleys queue-able inside magazine	126 trolleys

5. Attachment TLPM/081/06

Contingent Check-in Area



Contingent Check-in Area

Location

L6 Transition Deck

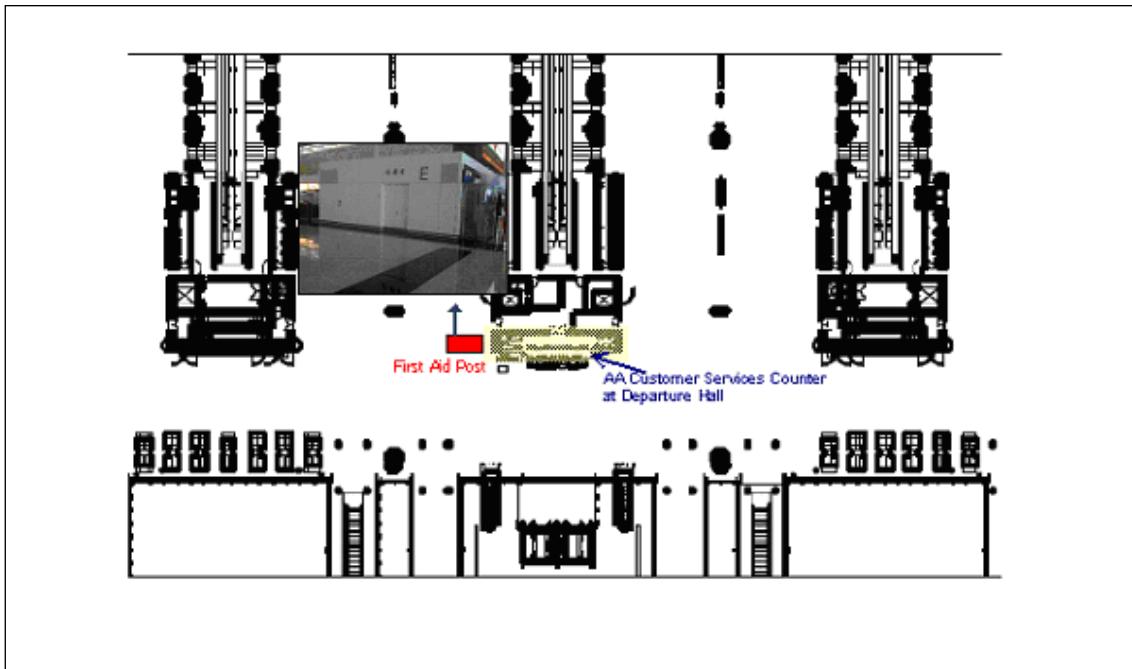
Resources Required

Folding tables and chairs 8 / 14

CUTE equipments 14

6. Attachment TLPM/081/07

St John Ambulance First Aid Post at T1 Departure Hall



Setup equipment:

1. 4 chairs and 2 trestle tables
2. 3 Trunk Mobile Radios
3. 1 "First Aid Post" signage
4. 4 moveable curtains
5. 2 boxes of bottled water
6. 20 blankets

7. Attachment TLPM/081/08

Signage at Entrance of Respective Serpentine

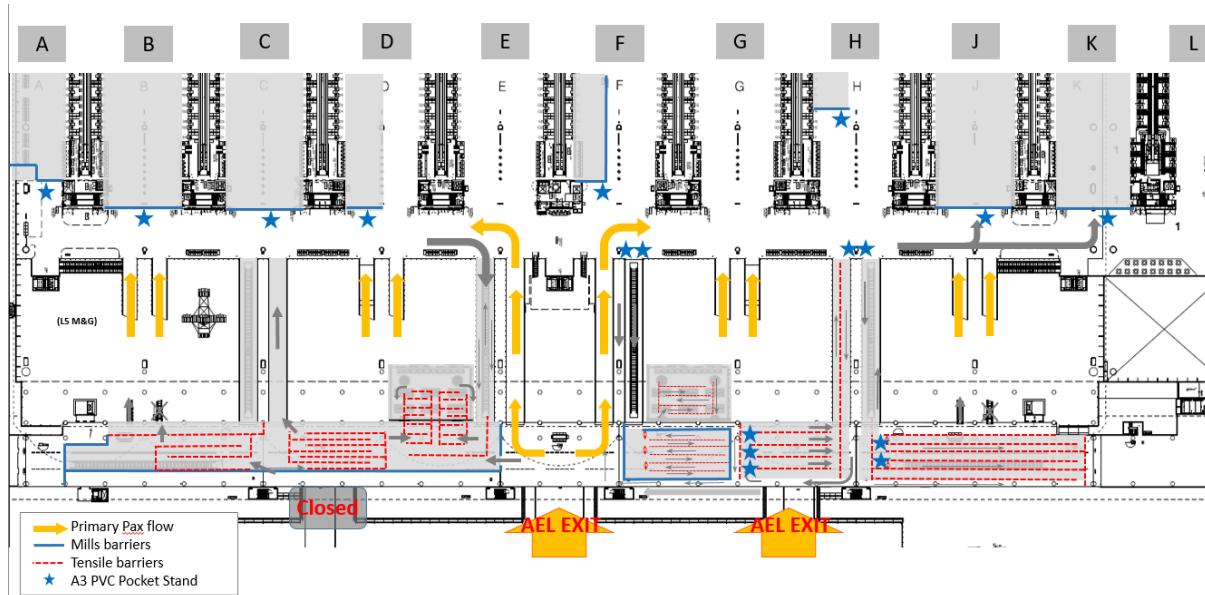
Note: signage to be displayed on pull-up banner



8. Attachment TLPM/081/09

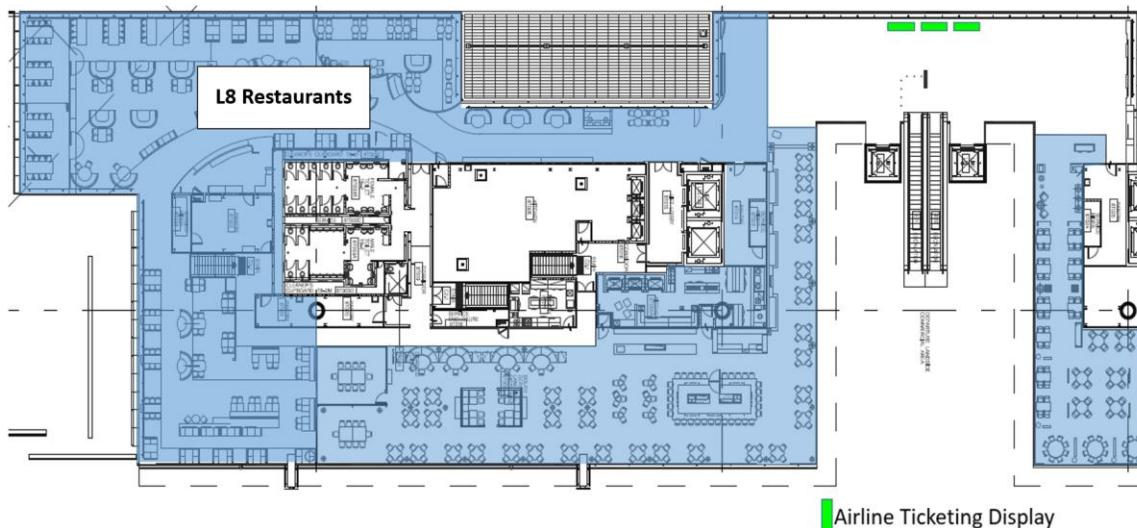
Location Plan of Signage

Note: signage to be displayed on pull-up banner



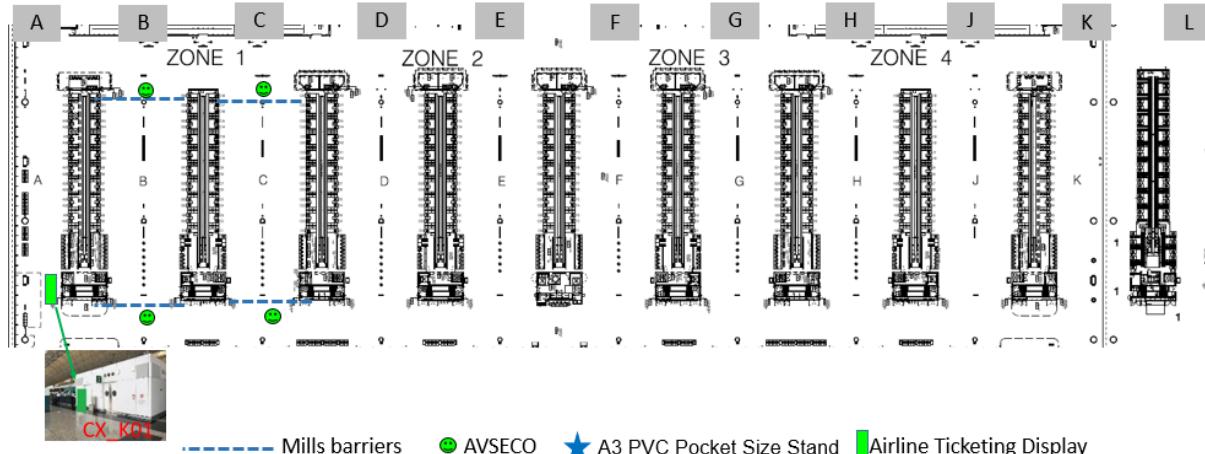
9. Attachment TLPM/081/10

Airport Disruption Ticketing Display Panel



Location

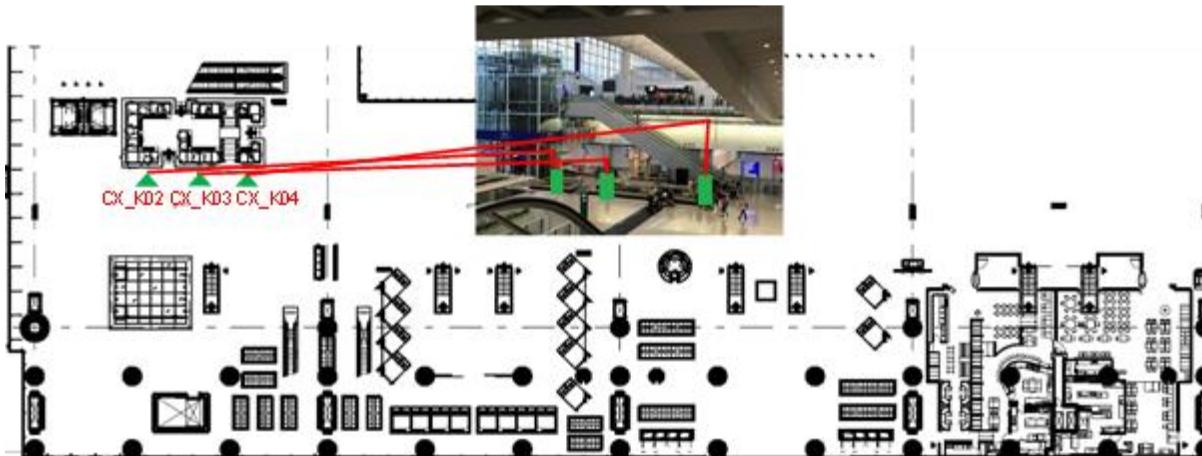
L8, opposite to Escalator E10, E11, Ticket Display Panels for UO and HX



Ticket Display Panel at Aisle A for CX

Location

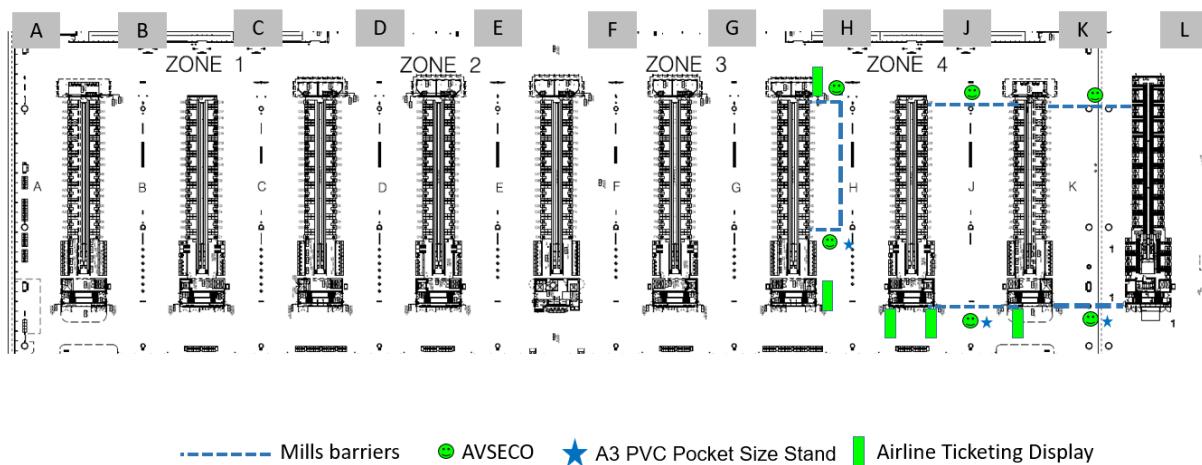
L7, check-in aisle A, B, C



▲Ticketing Display – CX

Location

L7, check-in aisle A, M&G Hall B Ticket Display Panels for CX

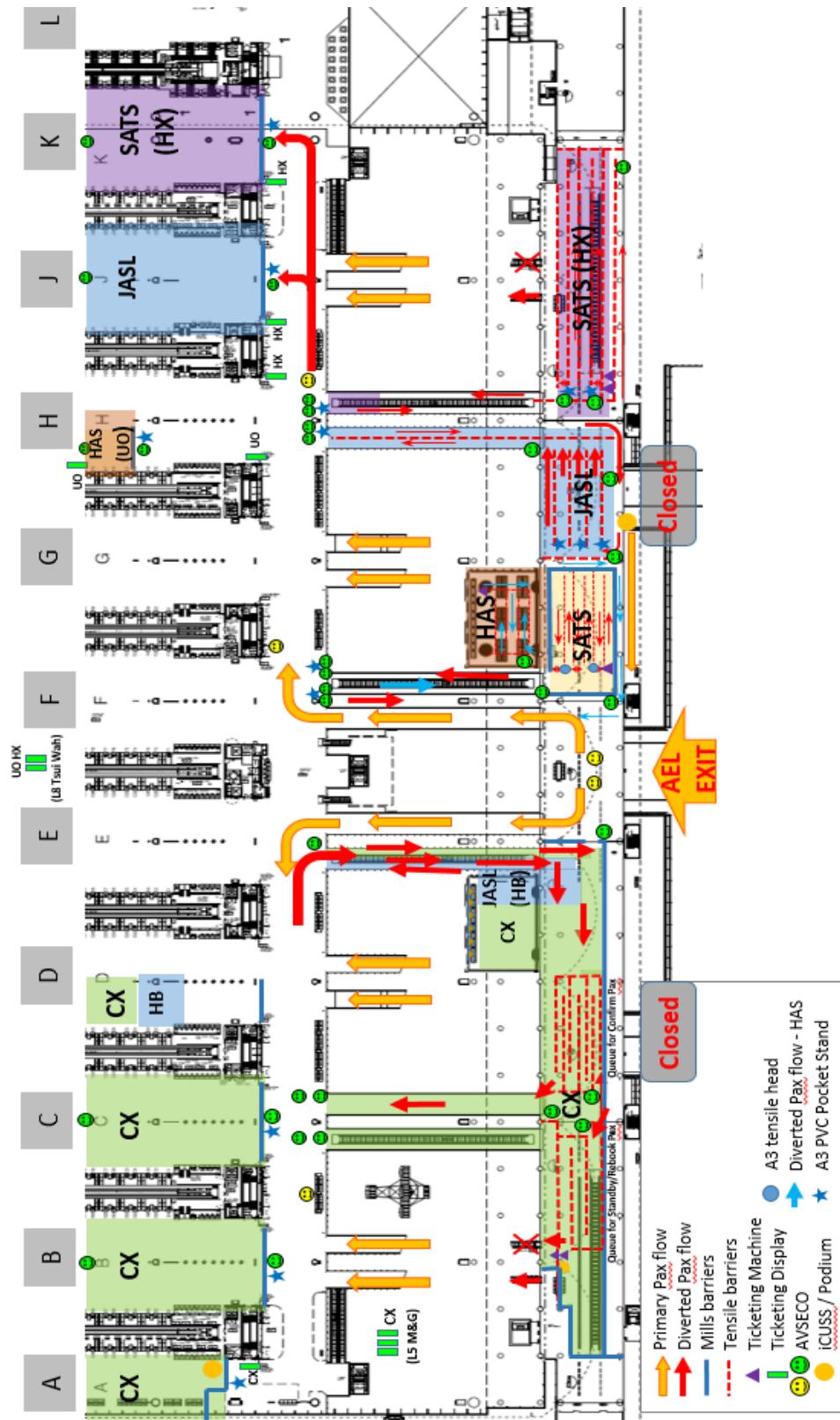


Location

L7, check-in aisle H,J and K for HX & UO

10. Attachment TLPM/081/11

Landside Crowd Management Setup Reference Plans



Remarks: Actual set-up and assigned area are subject to real-time operation.

B. T1 and T1M AIRSIDE CROWD MANAGEMENT

1. Purpose

- 1.1. The Airside Crowd Management Plan (The Plan) outlines the strategy and procedures employed for the airlines and the Airport Authority to deal effectively with crowd accumulation at the airside.
- 1.2. The thorough comprehension and effective execution of The Plan among all the related parties shall mitigate the impact and length of the contingency and hence ensuring the operation smoothness of the airport.
- 1.3. The following Airside Crowd Management procedures are extracted from the TOD source document “Terminal & Landside Procedure Manual No. TLPM/073 Airside Crowd Management Plan”.
- 1.4. The extracted material contained in this BCM will be updated as and when the source document is updated.

2. Scope

- 2.1. The Plan outlines the crowd management strategy and defines the responsibility of related parties.
- 2.2. It also lays out guidelines and procedures for execution during crowd management at airside.
- 2.3. Using the Plan as the reference, all related parties should devise their own plan and detailed procedures with respect to their own operational requirements and resource availability.
- 2.4. The Plan could be activated and applied on either one or more airlines and/or their handling agents with regard to the extent of the impact.
- 2.5. Crowd management can be activated in one or more of the following areas :
 - 2.5.1. T1 & T1M L5 Transfer Areas
 - 2.5.2. T1 & T1M L6 Airline Service Desk
 - 2.5.3. T1 & T1M L6 Designated Zones

3. Background

- 3.1. During crisis such as typhoon, rainstorm and thunderstorm, failure of critical systems, serious flight delays, accidents, etc., flight operations at the airport may be seriously affected and a large number of passengers will be stranded at the airside of the terminal.
- 3.2. To address the issue, a working group consists of the Airport Authority, Handling Agents, Airlines, Services Contractors and AVSECO has been established to formulate and test a crowd management plan to effectively manage massive crowd accumulation at the airside, thus mitigating impact to the airport operations.
- 3.3. A series of meetings had been held to derive a blueprint of The Plan, which had been subsequently put to test in a drill involving all the related parties.

4. Roles and Responsibilities

4.1. Airport Authority

4.1.1. Airport Duty Manager

- a. The Airport Duty Manager (ADM) will activate The Plan when, at his/her discretion, a massive number of passengers have been stranded because of flight irregularity among one or a number of airlines.
- b. Upon activation of The Plan, the ADM will continue to oversee and react to the crowd management situation at L5 and designated passenger holding areas at L6.
- c. The Terminal Operations Department (TOD) - Terminal and Landside Duty Manager (TLDM) – responsible for the implementation of the alerting procedures and subsequent coordination of contingency responses

4.1.2. IAC – TOD Counter Allocation Unit

- a. The IAC - TOD (Counter Allocation Unit) is responsible for consolidating the “Designated Zone Request Form” faxed in by the airlines and/or their handling agents.
- b. It will check the availability of the Designated Zone and advise IAC- SOCC for updating the FIDS.

4.1.3. IAC – SOCC

- a. The IAC – SOCC is responsible for implementation of the FIDS contingency procedure.
- b. It facilitates airline with basic, way finding and flight suppression on FIDS display at L5 and L6 of T1, T1S & T1M and update the Designated Zone information onto FIDS upon request from IAC – TOD. SOCC will provide password to affected airlines via IAC – TOD when required for accessing WIDS at related Designated Zone(s).

4.1.4. The ACC is responsible to liaise with IAC – TOD and airlines/ ground handling agents to coordinate stands allocation for the affected airlines to stands nearest to the designated zones whenever possible.

4.2. Airline / Ground Handling Agent

- 4.2.1. The Airlines / Ground Handling Agents are responsible for setting up their own crowd management procedures in accordance with the principles and guidelines of The Plan.
- 4.2.2. They should make preparation accordingly to get equipment, stationery and manpower ready for deployment in a contingency.
- 4.2.3. In addition to executing their own crowd management procedures, they are required to perform according to The Plan, which has stipulated their responsibilities as :

- 4.2.4. Handling their passengers within their Transfer Areas and Designated Zones.
- 4.2.5. Communicate and co-operate closely with the AA according to The Plan.
- 4.2.6. Get ready and deploy all the necessary resources, such as manpower, equipment and stationery.

4.3. AVSECO

- 4.3.1. AVSECO is responsible for managing the access control to the cordon-off area at the Transfer Counter Areas of T1 and T1M upon the request from IAC – TOD – TLDM.

5. Airside Crowd Management Plan

5.1. Strategy

- 5.1.1. When there is a massive number of a passenger stranded at the airside, the crowd management plan will be implemented.
- 5.1.2. Transfer Areas will be cordoned and access to which will be guarded for ease of passenger processing and flow management within the areas.
- 5.1.3. Passengers at the airside will be directed orderly from L5 to L6 through the transit channels because there is more facilities, space and passenger welfare facilities at L6.
- 5.1.4. Different Designated Zones for different airlines and ground handling agents will be pre-assigned.
- 5.1.5. Allocation of the designated zones will be carried out on-site with reference to the actual usage of gate seating area during the time of allocation.
- 5.1.6. The airlines and the ground handling agents will take care and manage their passengers in their respective Designated Zones.
- 5.1.7. AA will oversee the overall crowd situation and co-ordinate with airlines to keep the passengers in orderly manner and to dissolve the crowd as soon as possible.

5.2. Activation and Alert

- 5.2.1. When the ADM / IAC – TOD TLDM consider the crowd situation at the airside is too massive and requires special handling, he/she will activate the Plan.
- 5.2.2. Airlines and/or their handling agents can also request to activate the Plan but it will be subject to the final discretion of ADM / IAC – TOD TLDM.
- 5.2.3. Upon activation, IAC – TOD TLDM shall alert the following parties :
- 5.2.4. Terminal Operations Department – Assistant General Managers, Managers (TOGF).

- 5.2.5. Hong Kong Airport Police.
- 5.2.6. AVSECO Duty Manager.
- 5.2.7. AOC / affected airlines or their GHA's.
- 5.2.8. IAC – SOCC.
- 5.2.9. IAC – ACC.

5.3. L5 Transfer Area

ADM / IAC – TOD TLDM will work with relevant parties within AA to:

- 5.3.1. Cordon off one or more of the Transfer Counter Area(s), of the affected airlines at L5 of T1 and T1M.
- 5.3.2. AVSECO will be assigned to screen and control access to the cordoned area at L5.
- 5.3.3. Only passengers of the affected airlines in the cordoned area(s) will be allowed access.
- 5.3.4. Upon receiving "Designated Zone Request Form" from the affected airlines, gates at L6 will be assigned to the requested Designated Zones and affected flights reported by the airlines will be associated with the respective zones.
- 5.3.5. Appropriate amount of Transit Advice Card will be given to the affected airlines and/or their handling agents.

Affected airlines and / or their GHA's handling agents:

- 5.3.6. The airlines and/or their handling agents with massive stranded passengers, i.e. the affected airlines, shall co-operate and communicate closely with the AA to implement the Plan.
- 5.3.7. Unless otherwise stated, the airlines' or the handling agents' Duty Manager will be the contact point.
- 5.3.8. The affected airlines should :
 - a. Assess the stranded passengers' situation at L5 timely and, when deemed necessary, request to set up the Designated Zone at L6 for passenger handling by duly completing the "Designated Zone Request Form".
 - b. The "Designated Zone Request Form" should be faxed to Counter Allocation Unit (fax = 2182-2061, phone = 2182-2019).
 - c. Activate its own crowd management plan and/or control centre and inform the AA of their contact point.
 - d. To minimize effect on the overall airport operations, the airlines should put in place a plan as soon as possible with particular regard to affected flights minimization, passenger protection and handling procedures as well as welfare for different types of affected passengers.
 - e. Deploy sufficient manpower at the Transfer Counter Area

to process passengers and, if necessary, distribute the Transit Advice Card for diverting the stranded passengers to their respective Designated Zones in L6.

- f. Deploy manpower at appropriate locations i.e. Airline Services Desks at T1, T1M and/or those focal point to advice and guide passengers to the Designated Zones in L6.
- g. Prepare and display necessary signage(s) at the Transfer Counter Area, Airline Service Desks to facilitate passenger way-finding.

5.4. Designated Zones for Passenger Handling

5.4.1. Actions to be taken by AA :

- a. Designated Zones for different airline groups have been pre-planned as a blueprint for expediting actual allocation upon activation of the Plan.
- b. On receiving “Designated Zone Request Form” from the airlines, gates seating areas at L6 will be assigned to form different Designated Zones with respect to both the pre-planned allocation and the real time gate utilisation situation at that moment.
- c. Inform individual airlines if their Designated Zones are different from the applied ones due to the real time situation.
- d. The actual Designated Zone assignment will be entered into the “Designated Zone Request Form” and returned to the applying airlines and/or their handling agents.
- e. FIDS will be updated accordingly.

5.4.2. Actions to be taken by affected airlines and / or their handling agents :

- a. Erect sufficient signage(s) to ensure passengers from all the possible directions accessing the Designated Zones can be properly directed.
- b. Set up service desk and put in place all the necessary stationeries at the Designated Zone for passenger handling.

5.5. L6 and Designated Zones

5.5.1. Actions taken by AA :

- a. Update the FIDS according to the updated “Designated Zone Request Form” submitted to facilitate the way finding.
- b. IAC – TOD to obtain password from SOCC and distribute to affected airlines at Designated Zone(s) to access WIDS to view flight information when required.

- 5.5.2. Actions taken by affected airlines and / or their handling agents :
- a. Arrange for and provide appropriate passenger welfare.
 - b. Deploy sufficient manpower for passenger handling within the Designated Zones and at strategic locations including Airline Service Desk for guiding passengers.
 - c. Provide update to the AA on the number of stranded passengers and flight irregularities situation by hourly submission of the "Designation Zone Request Form".
 - d. Obtain password from AA to access WIDS (Appendix 7) to view flight information if required.

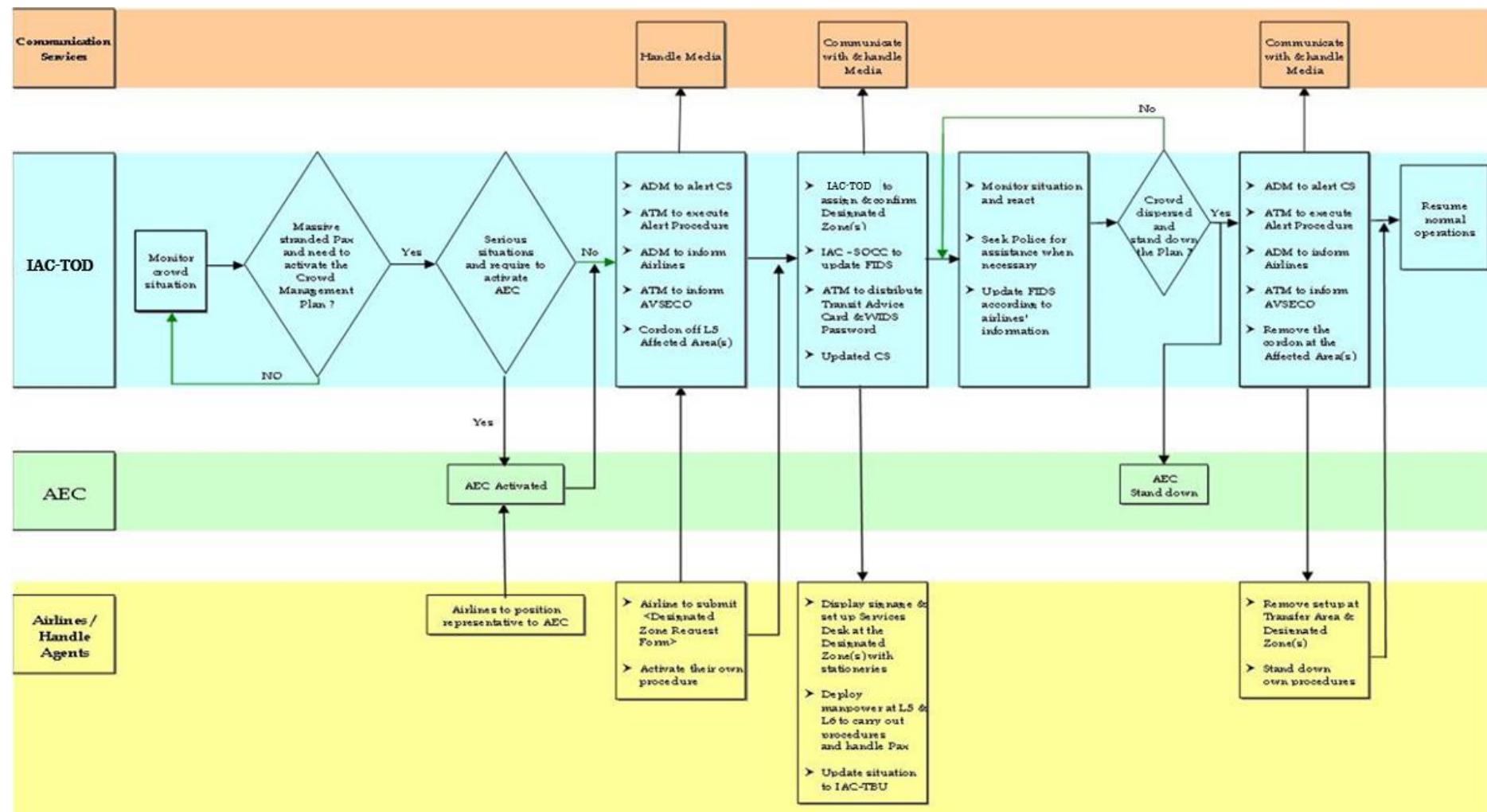
5.6. Stand Down and General Coordination

- 5.6.1. Actions taken by AA :
- a. The Plan will stand down, either partially or wholly when the crowd has been dispersed and when the ADM / IAC – TOD TLDM considers the situation fit for the stand-down.
 - b. Notice will be given to the affected airlines and/or handling agents by fax and/or email.
 - c. Cordon at the Transfer Area will be removed.
 - d. In general, the AA will liaise with the Hong Kong Police to implement necessary measures to ensure order during the crowd management.
- 5.6.2. Actions taken by affected airlines and / or their handling agents :
- a. When the airlines and/or their handling agents intend to stand down the crowd management procedure, the "Designated Zone Request Form" should be duly completed and submitted to the IAC – TOD.
 - b. Upon receiving approval to stand down the procedure, remove all the signage, stationery, service desk and all the other setup at the corresponding Designated Zones.

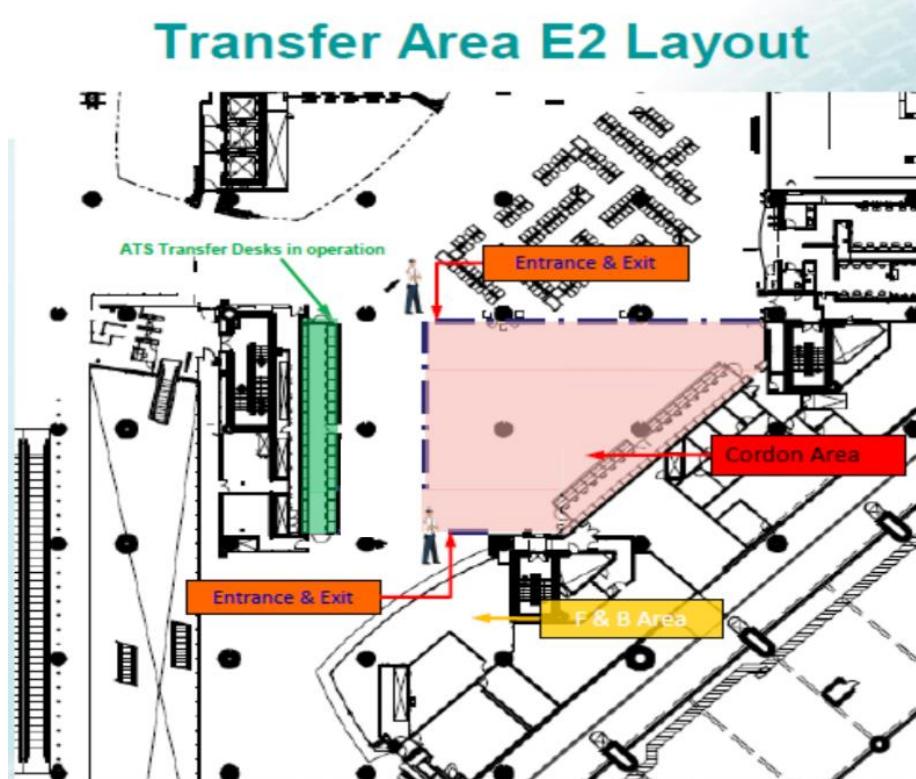
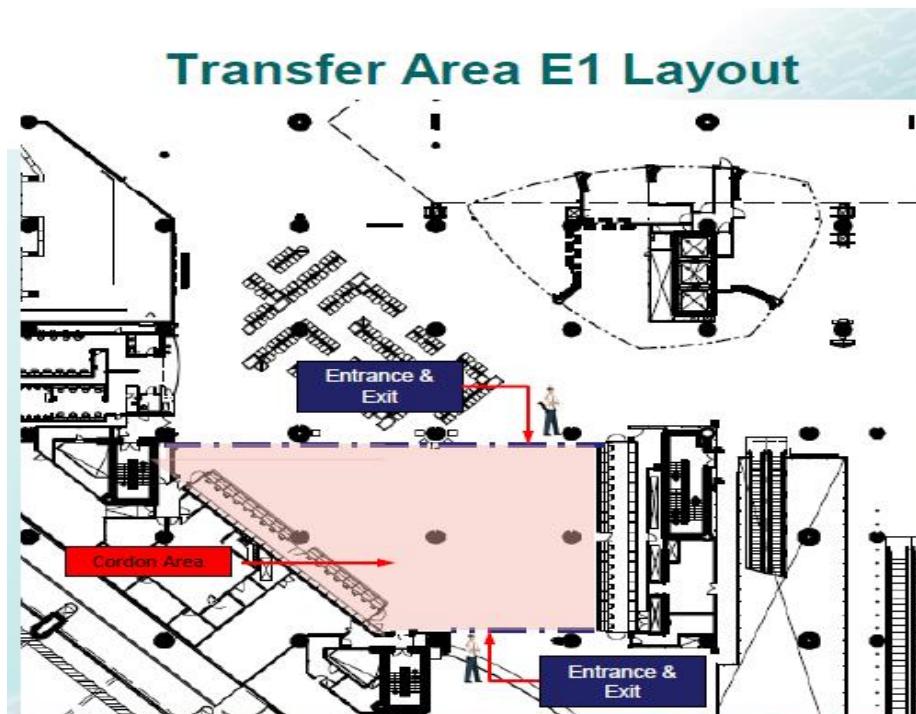
6.0 Glossary

AA	Airport Authority
ACC	Apron Control Centre
ADM	Airport Duty Manager
AEC	Airport Emergency Centre
ASD	Airline Services Desk
AVSECO	Aviation Security Company Limited
FIDS	Flight Information Display System
IAC	Integrated Airport Centre
LD	Landside Department
PA	Public Address System
T1	Terminal 1
T1M	T1 Midfield Concourse
TOD	Terminal Operations Department
TLDM	Terminal and Landside Duty Manager
SOCC	System Operations Control Centre
WIDS	Web Information Display System

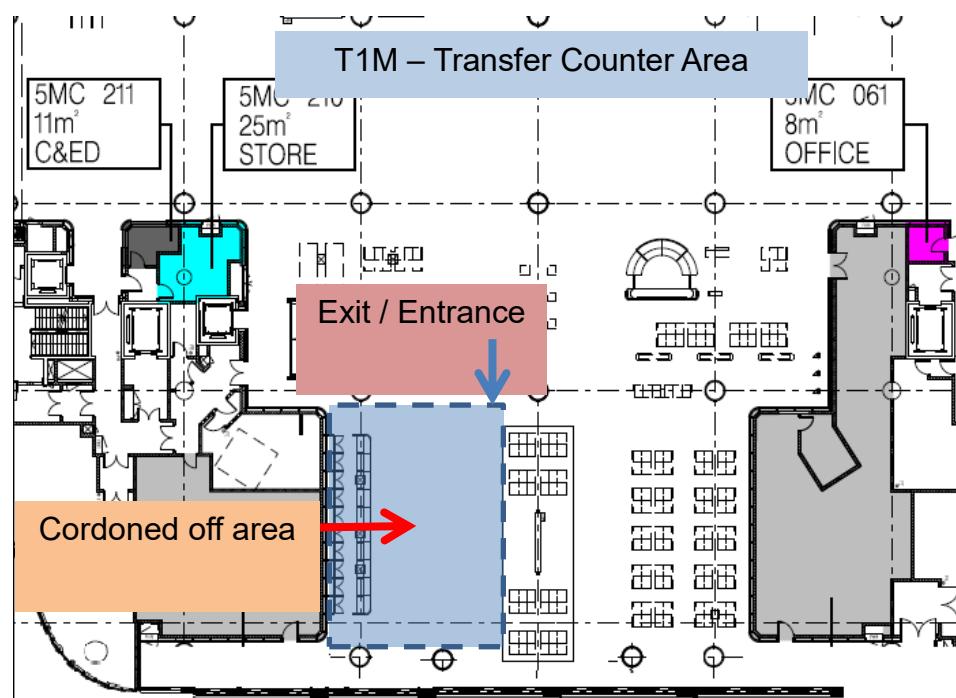
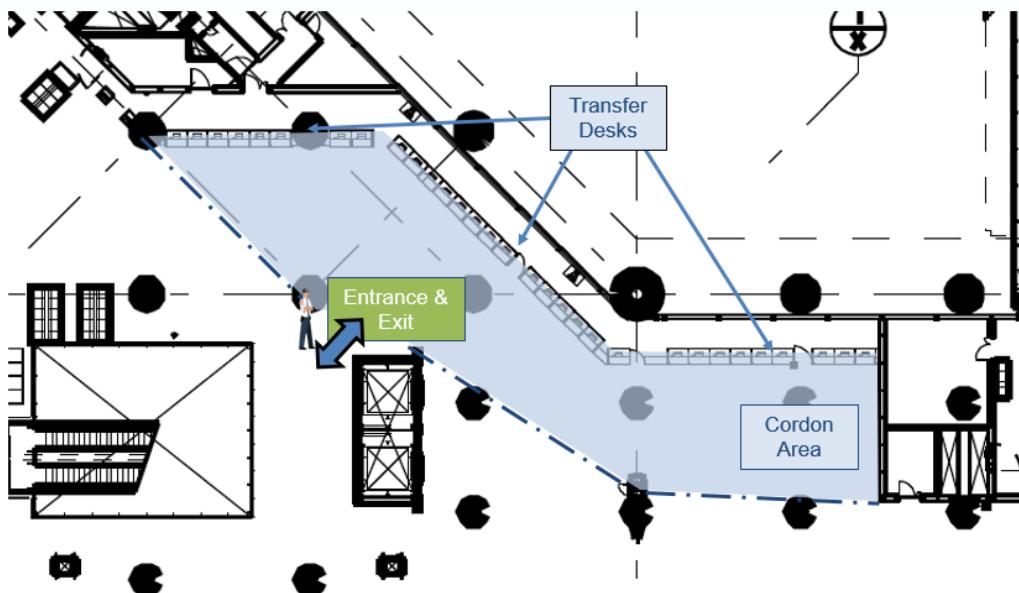
7.0 Overall Airside Process Flow



8.0 Layout – Level 5 Transfer Counter Areas

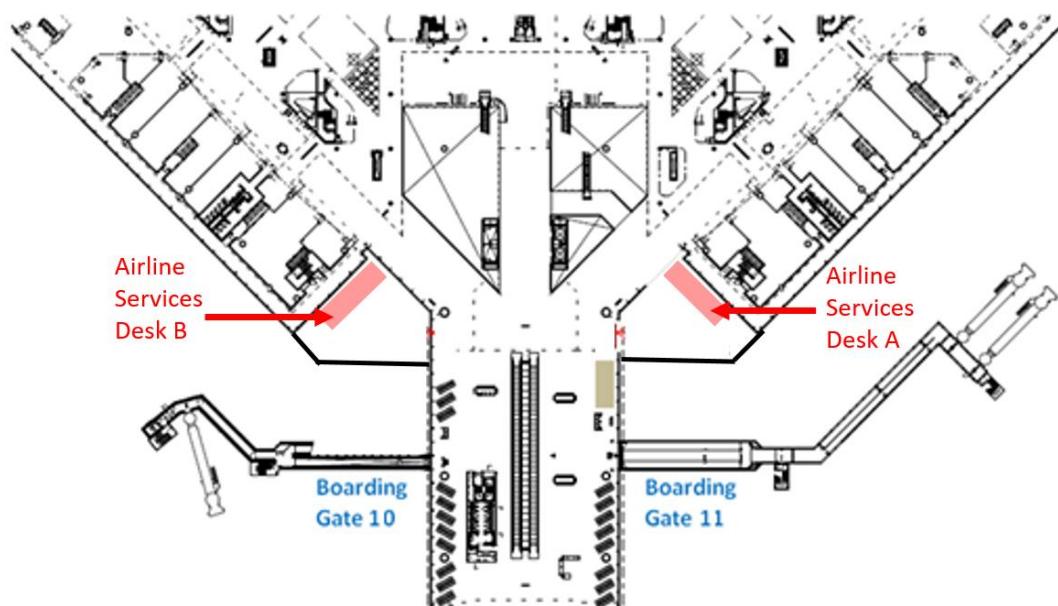


Transfer Area W1 Layout

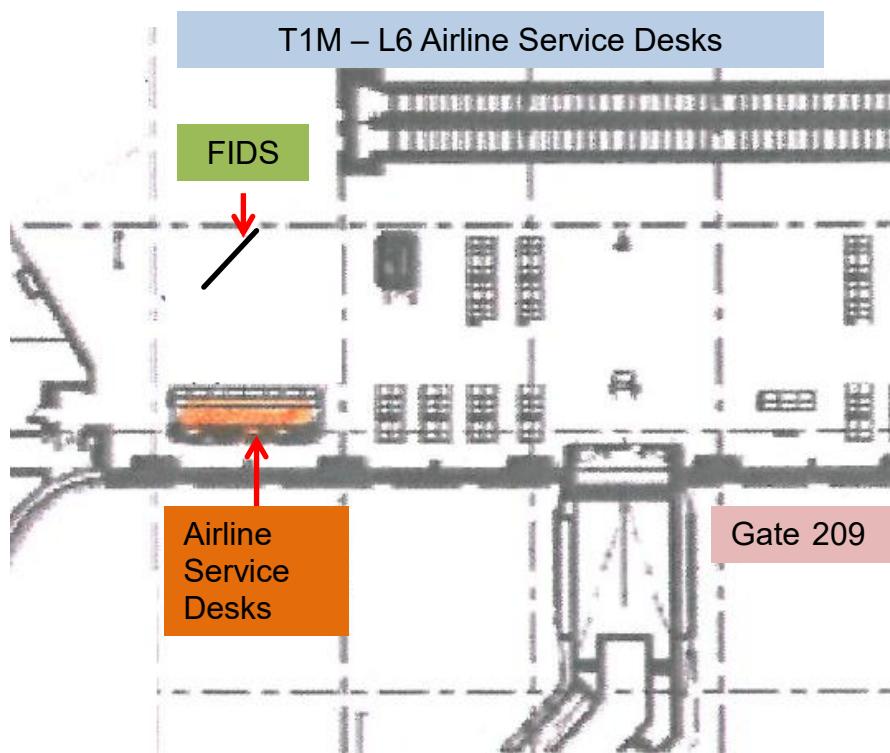


9.0 Layout – Airline Services Desks

T1 Level 6 Airline Services Desks



T1M Level 6 Airline Services Desks



10.0 Layout – Pre-planned L6 Designated Zones

L6 Pre-planned Designated Zone

Note: DZ may be changed subject to operational needs and PHAs' appointments

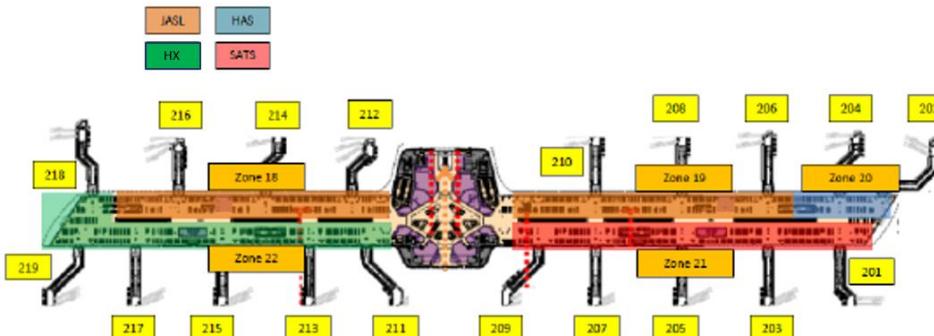
Pre-planned Designated Zone List

CAL Zone 5		Gate 23, 25, 27 CI / AE		Gate 66-70 Australia / New Zealand / Africa / Middle East / USA / Canada / Europe		Gate 521 Taiwan	
CX Zone 1 (Gate 1-4) Zone 13 (Gate 66-70) Zone 16 (Gate 521) Zone 15 (Gate 42-44)		Gate 1-4 China / Japan / East Asia / South East Asia / North East Asia		Gate 66-70 Australia / New Zealand / Africa / Middle East / USA / Canada / Europe		Gate 521 Taiwan	
Gate 46-50 All HX Flights							
HAS Zone 3 (Gate 6) Zone 7 (Gate 12, 24) Zone 8 (Gate 26) Zone 10 (Gate 34, 36) Zone 14 (Gate 41, 43)		Gate 6 KE / S7 / GJ		Gate 12, 24 AI / MS / RJ / UO		Gate 26 ZH / QR	
						Gate 34, 36 BI / TW / LH / LX	
						Gate 41, 43 PX / PG / JL / RA / SU	
JASL Zone 2 (Gate 5) Zone 4 (Gate 7, 8, 9) Zone 9 (Gate 28, 29, 30, 32) Zone 11 (Gate 60, 62, 64)		Gate 5 AC / UB / SC / JD		Gate 7 MU / HB / NS / RY		Gate 8 3U / AY / BR / CZ / MF	
						Gate 9 CA / FM / GS / PN	
						Gate 29 7C / BL / GK / LJ	
						Gate 28, 30, 32 EK / LY / NH / NZ / OM / PR / SQ	
						Gate 60, 62, 64 5J / AF / BA / GA / KL / MM / ZE	
SATS Zone 6 (Gate 31, 33, 35)		Gate 31 FJ / MH / QF / HU / 8L / TR / UQ		Gate 33 6E / BX / HO / KC / LQ / OD / OZ / TG / WE / VZ / K6		Gate 35 9C / AK / ET / EY / FD / MK / TK / VJ / VN / Z2	
						Gate 61, 63 UA	

Note: DZ may be changed subject to operational needs and PHAs' appointments

10.0 Layout – Pre-planned L6 Designated Zones

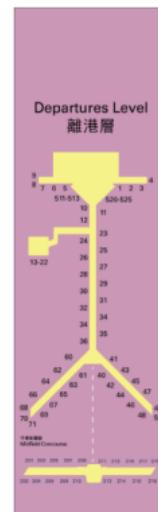
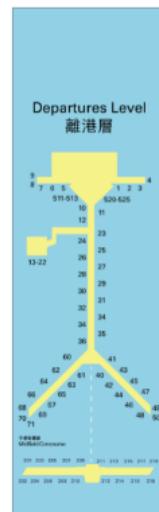
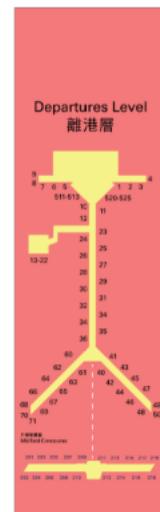
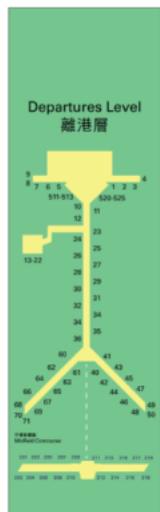
T1M L6 Pre-planned Designated Zone



T1M L6 Pre-planned Designated Zone List

HX Zone 22 (Gate 211, 213, 215, 217, 218, 219)	Gate 211, 213, 215, 217, 218, 219 All HX flights	
HAS Zone 20 (Gate 202, 204)	Gate 202, 204 BI / PG / S7	
JASL Zone 18 (Gate 212, 214, 216) Zone 19 (Gate 206, 208, 210)	Gate 212, 214, 216 MU / MF / BR / CA / FM	Gate 206, 208, 210 3K / 7C / LJ / MM / PR / 5J / GA
SATS Zone 21 (Gate 201, 203, 205, 207, 209)	Gate 201, 203, 205, 207, 209 MH / HO / BX / 9C / ET / FD / AK / FJ / KC	

11.0 Transit Advice Card – Example



12.0 Designated Zone Request Form – Example

 <p>HONG KONG INTERNATIONAL AIRPORT</p>					
Designated Zone Request Form					
To: Fax: Tel: Date:	Counter Allocation Unit 2182 2061 2182 2019		Handling Agent: CAL / CPA / HAS / JAT / SATS / UAL		
			Contact Person: _____ Contact Telephone Number: _____		
Request Activate Designated Zone					
	Airline Code	Flights	Final destination	Designated Gate	Activated at
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
Request Stand Down of Designated Zone					
	Airline Code	Flights	Final Destination	Designated Gate	Stand Down At (HH:MM)
1					
2					
3					
4					
5					
Received at Action by			Complete at		

13.0 WIDS – Display Examples

Wireless LAN FIDS Display – Departure

香港國際機場 離港資料										第十頁(共四十五頁)		
STD	ETD	ATD	CHK	Flight	S	Type	P	目的地	Gate	Stand	HA	現況
16:35				CI 679	J	330	T	雅加達	30	N30	CAL	已啓航 16:41
16:35				CX 080	F	74F	F	安克雷奇>芝加哥		C23	CPA	
16:35				CX 838	J	340	T	溫哥華	29	S29	CPA	截止登機
16:40				MU 5020	J	737	T	太原	20	N20	JAT	已啓航 16:36
16:50				BR 856	Q	74M	T	台北	62	N62	HIA	
16:50				CX 312	J	330	T	北京	61	W61	CPA	
				CA 6602								
16:55				CX 082	F	74F	F	安克雷奇>紐約/肯尼迪		C18	CPA	
16:55				KA 996	J	32S	T	北京		HIA	取消	
				CA 6524								
17:00				KA 2510	A	XXX	F	大阪/關西		HIA	取消	
17:00				KA 808	J	32S	T	上海/浦東	50	W50	HIA	
17:00				MU 576	J	32S	T	福州	26	N26	JAT	
17:05				5X 166	F	75F	F	新加坡>克拉克>路易斯維爾		C22	ZZ	
17:05				UO 216	J	E70	T	南京	8	W122R	MEN	截止登機
上一頁			下一頁			自動換頁			抵港資料			English

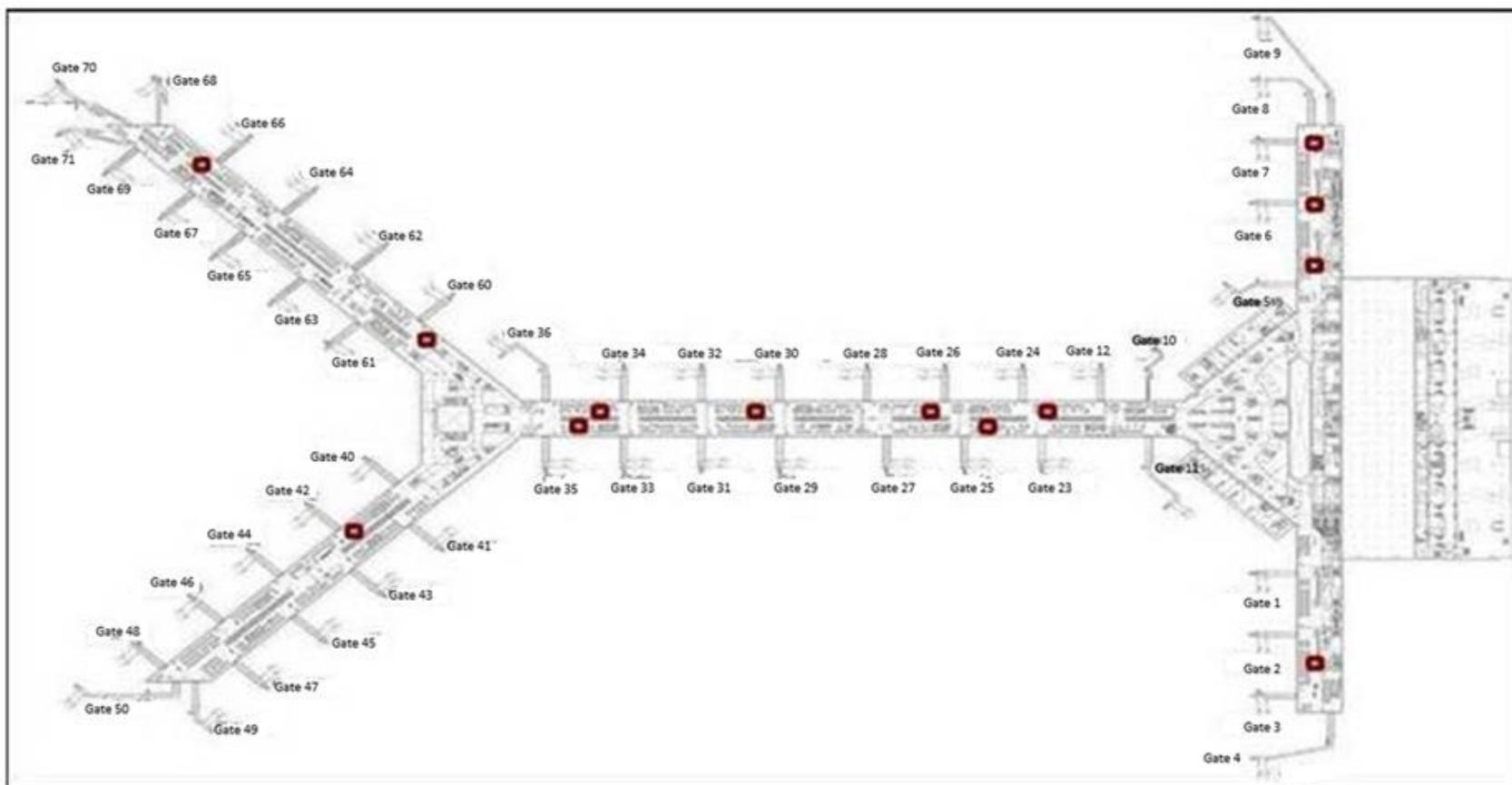
Wireless LAN FIDS Display – Arrival

Hong Kong International Airport ARRIVAL										Page 1 of 43		
STA	ETA	ATA	CHK	Flight	S	Type	P	From	Belt	Stand	HA	Status
12:55	13:37	13:38	13:51	5X 062	F	M1F	F	SDF>ANC		C21	ZZ	Arr. gate 13:51
12:55	13:26	13:28	13:35	CZ 3089	J	737	T	NNG	2	N148	JAT	Arr. gate 13:35
12:55	12:42	12:42	12:53	JL 701	J	747	T	KIX	4	W48	JAL	Arr. gate 12:53
12:55				N8 156	J	737	T	SYX		HIA	Cancelled	
12:55	12:56	12:56	13:04	TG 629	J	330	T	ICN	6	W46	CPA	Arr. gate 13:04
13:00	13:53	13:52	14:02	CX 461	J	747	T	TPE	12	S23	CPA	Arr. gate 14:02
13:00	13:10	13:12	13:21	MH 072	J	777	T	KUL	11	S29	CPA	Arr. gate 13:21
				CX 1726								
13:00	13:47	13:48	13:57	MU 727	J	330	T	PVG	3	E17	JAT	Arr. gate 13:57
13:05	13:11	13:14	13:22	CX 417	J	777	T	ICN	13	S21	CPA	Arr. gate 13:22
13:05	12:39	12:40	12:49	CX 503	J	330	T	KIX	8	W65	CPA	Arr. gate 12:49
13:05	13:31	13:34	13:38	KA 627	J	32S	T	HGH	3	W69	HIA	Arr. gate 13:38
				CA 6530								
13:10	13:14	13:18	13:24	CX 533	J	330	T	NGO	13	W61	CPA	Arr. gate 13:24
				JL 5125								
Page Up			Page Down			Scroll			Departure			中文

14.0 FIDS – Way Finding Example

Time	Flight	Destination	Gate	Status	時間	航班	目的地	閘口	現況
09:00	KA 432	Kaohsiung		Est at 16:00	09:00	KA 432	高雄		預計 16:00
10:55	CZ 312	Shantou		Est at 16:00	10:55	CZ 312	汕頭		預計 16:00
11:00	5J 111	Manila		Final Call	11:00	5J 111	馬尼拉		最後召集
11:00	KA 804	Shanghai/Pudong		Go to gate 99	11:00	KA 804	上海/ 浦東		請到99號閘口
	CX 6834					CX 6834			
11:10	BR 852	Taipei		Est at 15:00	11:10	BR 852	台北		預計 15:00
11:15	CZ 309	Beijing		Final Call	11:15	CZ 309	北京		最後召集
11:15	KA 640	Ningbo		Est at 17:15	11:15	KA 640	寧波		預計 17:15
11:15	MU 502	Shanghai/Pudong		Est at 16:00	11:15	MU 502	上海/ 浦東		預計 16:00
11:20	MU 766	Nanjing		Final Call	11:20	MU 766	南京		最後召集
11:20	TG 609	Phuket		Now Boarding	11:20	TG 609	布吉		現正登機
		Bangkok					曼谷		
11:25	CI 604	Taipei		Delay	11:25	CI 604	台北		延遲
11:30	MU 572	Fuzhou		Go to gate 99	11:30	MU 572	福州		請到99號閘口
11:30	UO 2060	Hangzhou		Now Boarding	11:30	UO 2060	杭州		現正登機
11:35	CZ 3076	Wuhan		Now Boarding	11:35	CZ 3076	武漢		現正登機
11:35	MU 594	Hangzhou		Now Boarding	11:35	MU 594	杭州		現正登機
11:50	CI 641	Bangkok		Go to gate 99	11:50	CI 641	曼谷		請到99號閘口
11:50	MU 2902	Wuxi		Boarding Soon	11:50	MU 2902	無錫		預備登機
11:55	MU 716	Ningbo		Delay	11:55	MU 716	寧波		延遲
11:55	NB 1390	Nanning		Delay	11:55	NB 1390	南寧		延遲
12:05	MU 5026	Jinan		Delay	12:05	MU 5026	濟南		延遲
12:10	CZ 3030	Sanya		Go to gate 99	12:10	CZ 3030	三亞		請到99號閘口
12:20	MU 702	Shanghai/Pudong		Delay	12:20	MU 702	上海/ 浦東		延遲
12:25	MU 5016	Qingdao		Delay	12:25	MU 5016	青島		延遲

15.0 3-in-1 Fax & Phone Line Layout and Numbers



3-in-1 Phone/Fax Number

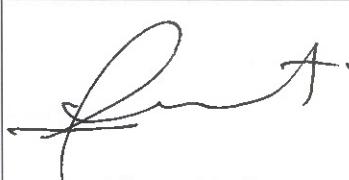
Binnacles	Designated Zone	Location	Phone No.
6S4	Zone 1	Between Gate 2 & 3	21822452
6N1	Zone 2	Between Gate 5 & 6	21822453
6N2	Zone 3	Between Gate 6 & 7	21822454
6N5	Zone 4	Between Gate 8 & 9	21822455
6Z19	Zone 7	Between Gate 12 & 24	21822456
6Z15	Zone 8	Between Gate 26 & 28	21822457
6Z16	Zone 5	Between Gate 23 & 25	21822458
6Z11	Zone 9	Between Gate 30 & 32	21835252
6Z4	Zone 6	Between Gate 33 & 35	21835253
6Z5	Zone 10	Between Gate 34 & 36	21835254
6Y14	Zone 15	Between Gate 40 & 42	21835255
6Y19	Zone 14	Gate 41	21835256
6X4	Zone 12	Gate 61	21835257
6X5	Zone 11	Gate 60	21835258
6V5	Zone 13	Gate 66	21835259
		L5 Gate 27	21822459
		L5 Gate 44	21835260

END OF BCP – B2

Business Continuity Manual

Business Continuity Plan: B3

Lifts & Escalators

		Signature	Revision	Effective Date
Updated By	Senior Manager APM System TSS	 Gary Chan		
Updated By	Assistant General Manager Estate Management TOD	 Vincent Lui		
Updated By	Assistant General Manager Land Transport & Landscape LD	 Sanna Tam	33	Aug 2023
Reviewed By	Assistant General Manager BCP, SSBC	 Emily Chu		
Approved By	General Manager SSBC	 David Jea		

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C	Contingency Planning	B3.8
D	Contingency Procedures	B3.8
E	Interface with Other Operational Organizations during Contingency	B3.8
F	Drill Plan	B3.8
G	Procedure for Handling of Lifts Incidents	B3.9
H	Procedure for Handling of Escalators and Moving Walkways Incidents	B3.15

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A. System Description

1.0 Lifts

- 1.1 There are passenger lifts, goods lifts, firemen lifts, dumbwaiters, dock levelers and scissors lifts.
- 1.2 The total number of lifts and their locations are as follows:

Locations	Total Units
Terminals & Concourses: <ul style="list-style-type: none">• Terminal 1 (T1) 110• Sky Bridge 13• T1 Satellite Concourse (T1S) 8• T1 Midfield Concourse (T1M) 23• SkyPier Terminal (SPT) 17	
Airside: <ul style="list-style-type: none">• Integrated Airport Centre (IAC) 3• Backup IAC 1• T1M Ramp Office 1• New APM Depot 9	
Landside: <ul style="list-style-type: none">• Ground Transportation Centre (GTC) 12• Limousine Lounge 2• Car Park 4 3• AEL Platform 3• Airport Authority Building (AAB) 2• HKIA Tower 8• HKIA Tower Two 7• HKIA Commercial Building 6• HKIA Community Building 5	

- 1.3 There are 4 maintenance contractors, namely Mitsubishi, KONE, Otis and TK Elevator.
- 1.4 Every lift is equipped with emergency lighting, ventilation fan and alarm button with intercom system connected to IAC. In case of any emergency, the trapped passenger(s) could press the alarm button and communicate with Duty Staff at IAC.
- 1.5 All lifts are equipped with CCTV.

2.0 Escalators

2.1 The total number of escalators and their locations are as follows:

Locations	Total Units
Terminals & Concourses:	
• Terminal 1 (T1)	77
• Sky Bridge	20
• T1 Satellite Concourse (T1S)	6
• T1 Midfield Concourse (T1M)	16
• SkyPier Terminal (SPT)	10
Landside:	
• Ground Transportation Centre (GTC)	4
• Limousine Lounge	1
• Government VIP Lounge	2
• HKIA Community Building	6

- 2.2 There is one maintenance contractor namely TK Elevator.
- 2.3 Every escalator at T1, Sky Bridge, T1M, and SPT is equipped with 2 emergency buttons at each end of the escalator whereas those at GTC and T1S are equipped with 1 emergency button at each end of the escalator. In case of an emergency, any person could push the emergency button to cease the escalator with a descending speed.
- 2.4 For escalator with vertical rise greater than 10m, an additional emergency button (covered by a transparent plate) has been installed in the middle of the escalator.

3.0 Walkways

3.1 The total number of walkways and their locations are as follows:

Locations	Total Units
Terminals & Concourses:	
• Terminal 1 (T1)	66
• Sky Bridge	2
• T1 Midfield Concourse (T1M)	19

- 3.2 There is one maintenance contractor namely TK Elevator.
- 3.3 Every walkway at T1, Sky Bridge and T1M is equipped with 1 emergency button at each end as well as in the middle of the walkway.
- 3.4 In case of any emergency, any person could push the emergency button to cease the walkway with a descending speed.

B. Physical System Risk

Risk	Description	Mitigation	
		Lifts	Escalators/ Walkways
Temporary Power supply failure (e.g. power dip)	Interruption of the service due to suspension of power - less than 0.2 second or remaining 40% current power.	No interruption	Resume within 60 minutes upon power resumption
Power supply failure	Interruption of the service due to suspension of power	i. No interruption for Fire and OOG lifts due to support from emergency power. ii. Passenger lifts could be resumed within 60 minutes upon power resumption	Resume within 60 minutes upon power resumption
Trespassers	Unauthorized operation of the equipment	Master key system had been applied for the switch on/off of the equipment.	Master key system had been applied for the switch on of the equipment.

C. Contingency Planning

In accordance with Contingency Procedures for Power Distribution System under Business Continuity Manual, supported by an interleave system, only one-third of the zone (say North check-in hall, South East Hall etc.) would be affected during suspension of power. TOD / LD Duty Teams would guide the passengers to use unaffected lifts, escalators and walkways accordingly.

D. Contingency Procedures

1. For the handling of incidents of lifts, escalators and walkways, Maintenance Procedures as stated in Items G and H are referred.
2. The purpose of these procedures are to define the responsibilities of the concerned parties and to describe the activities associated with the handling of incidents related to lifts, escalators and walkways within the Airport Authority's buildings and premises.
3. These procedures apply to the following incidents or situations affecting lift, escalator and walkway services in any of the Airport Authority's buildings or premises, including:
 - i. Interruption or suspension of power
 - ii. Interruption of service due to improper use or equipment failure
 - iii. Interruption of service with or without passengers trapped

E. Interface with Other Operational Organizations during Contingency

1. Lifts / Escalators / Walkways Maintenance Contractors (MC);
2. AA IAC;
3. AA TSI;
4. AA TOD; and
5. AA LD.

F. Drill Plan

Drill by Maintenance Contractors and TSI on handling of incidents of lifts, escalators and walkways is conducted on annual basis.

G. Procedure for Handling of Lift Incidents

1.0 Interruption of service with passengers trapped

- 1.1 On receipt of a call regarding a lift failure from IAC operation staff, or any other channels, FRTMO shall verify the lift status via General Building Management System (GBMS) or Building Management System (BMS) whether there are passengers trapped in the lift affected. At the same time, FRTMO makes an emergency call to the Maintenance Contractor to arrange immediate attendance and necessary emergency works.
- 1.2 If there are trapped passengers, a representative from the IAC must be dispatched to the scene to co-ordinate with the Maintenance Contractor to release the trapped passengers.
- 1.3 The Maintenance Contractor at the scene shall report to FRTMO as far as possible to ascertain the apparent cause of the failure (i.e. whether it is a lift failure or other failure such as power supply). FRTMO communicates the lift Maintenance Contractor, using mobile telephone, or other suitable means, so that the Maintenance Contractor can carry out the repair works urgently as required.
- 1.4 If the Maintenance Contractor cannot attend the site within the prescribed time, or if any passengers trapped in the lift become hysterical and/or ill, the IAC operation staff at the scene shall contact Fire Services Department for assistance. After the release of any passengers from the lift, the maintenance contractor will diagnose the failure, rectify the fault and restore the lift to normal operation, and to submit an incident report with recommendations to the Building Electrical and Mechanical Team to prevent the recurrence of similar incident.
- 1.5 Refer to details of the handling procedures in the attached flow chart.

*Note: 'Prescribed time' is the response time agreed with the lift maintenance contractor in accordance with the maintenance contract.

2.0 Interruption of service with no passengers trapped

- 2.1 If no passengers are trapped, IAC operation staff as far as possible ascertains the location and floor of the lift affected while FRTMO verifies the lift status via GBMS or BMS. FRTMO forward the information to the Maintenance Contractor as soon as possible using telephone or any other suitable means.
- 2.2 Upon arrival, the Maintenance Contractor reports to FRTMO by mobile telephone, etc., and rectifies the fault and restores the lift to normal operation as per instruction from FRTMO. The lift failure or interruption to service will be recorded in the routine maintenance report and submitted to Building Electrical and Mechanical Team. The Maintenance Contractor will inform the FRTMO after the fault was rectified and the lift was reactivated. FRTMO will report the status to IAC at the same time.
- 2.3 Refer to details of the handling procedures in the attached flow chart.

3.0 Interruption or Suspension of Power

- 3.1 If there is an interruption to or suspension of power, the operation of the lift service may also be interrupted. If any of the lifts have stopped, IAC operation staff will immediately call FRTMO to inform the Maintenance Contractor to check whether there are any trapped passengers inside the affected lifts.
- 3.2 If there are passengers trapped, the procedure described in Section 1.0 is followed, except diagnosing the cause of failure and recommendations regarding rectification are not necessary. If no passengers are trapped, the procedure described in Section 2.0 shall apply, except that, again diagnosis and recommendations are not necessary.
- 3.3 Refer to details of the handling procedures in the attached flow chart.

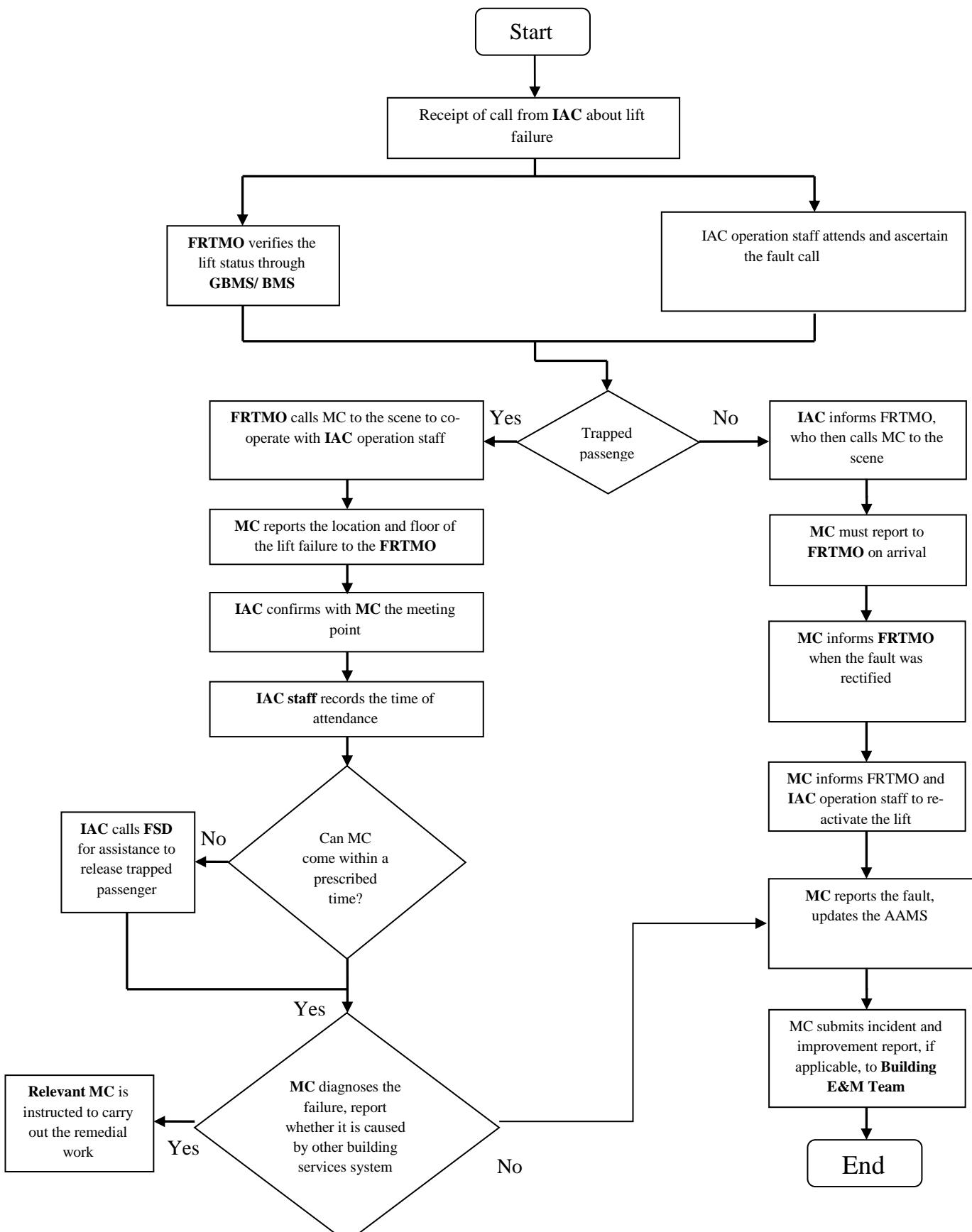
4.0 Interruption or Suspension of Lift Service

- 4.1 If an interruption to or suspension of lift services is caused by careless, improper use or equipment failure such as accidental or deliberate jamming of the lift door safety edge, material trapped in the lift door track etc., the IAC operation staff are normally able to restore the lift to normal operation. If not, FRTMO will call the Maintenance Contractor for assistance.
- 4.2 Refer to details of the handling procedures in the attached flow chart.

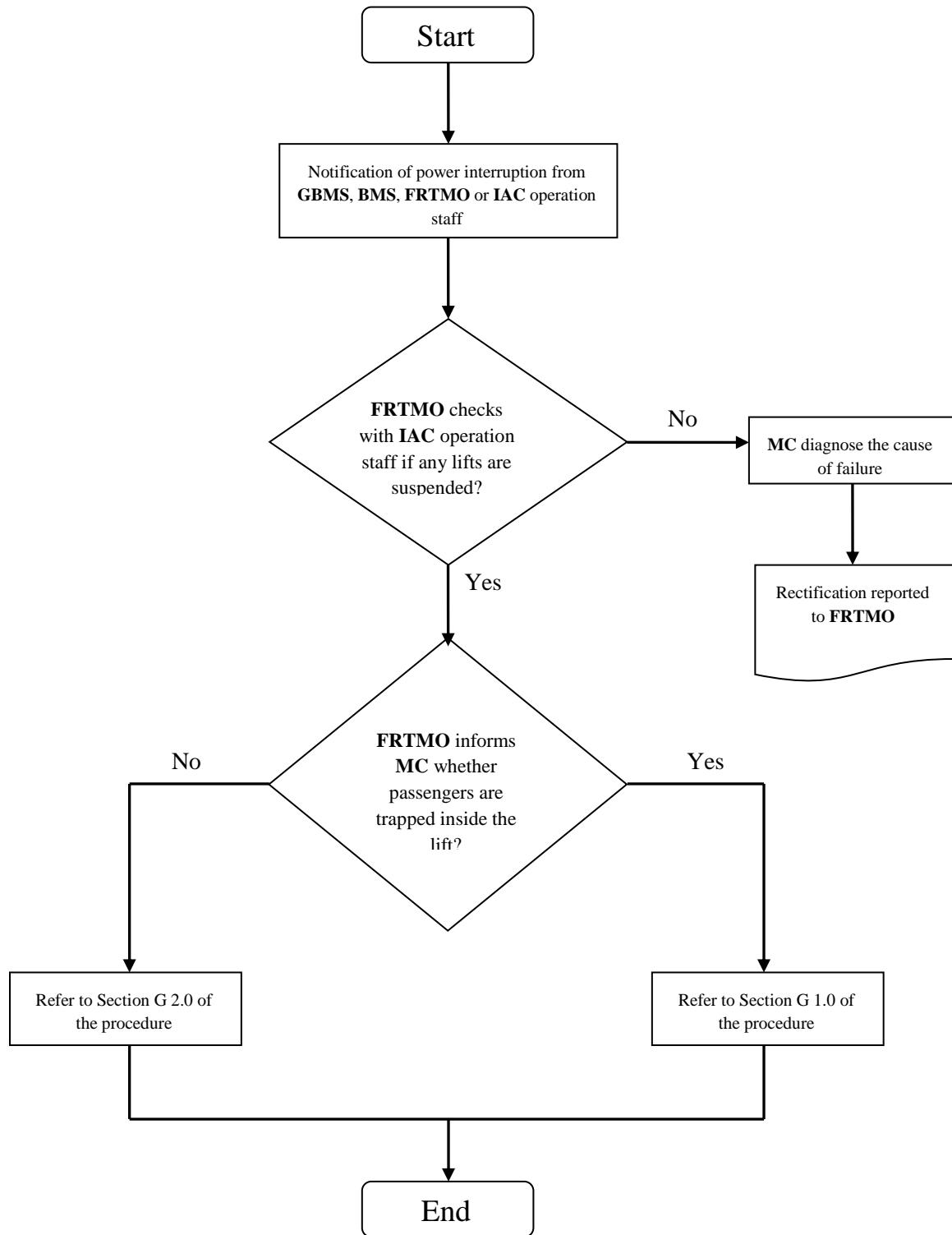
5.0 Management and Administration of the Work

- 5.1 Service Request (SR) will be issued to the Maintenance Contractor for works related to Section 1.0 and 2.0 using the AAMS workstation in accordance with the procedures for “Unplanned Works Orders” set out in the maintenance contract. This type of works order is given a higher priority for the purpose of managing and controlling the workload.
- 5.2 During the repair work, staff from the Building Electrical and Mechanical Team are responsible for ensuring that the Maintenance Contractor provides all necessary fencing, and posts appropriate notices and temporary signage as required at the location.

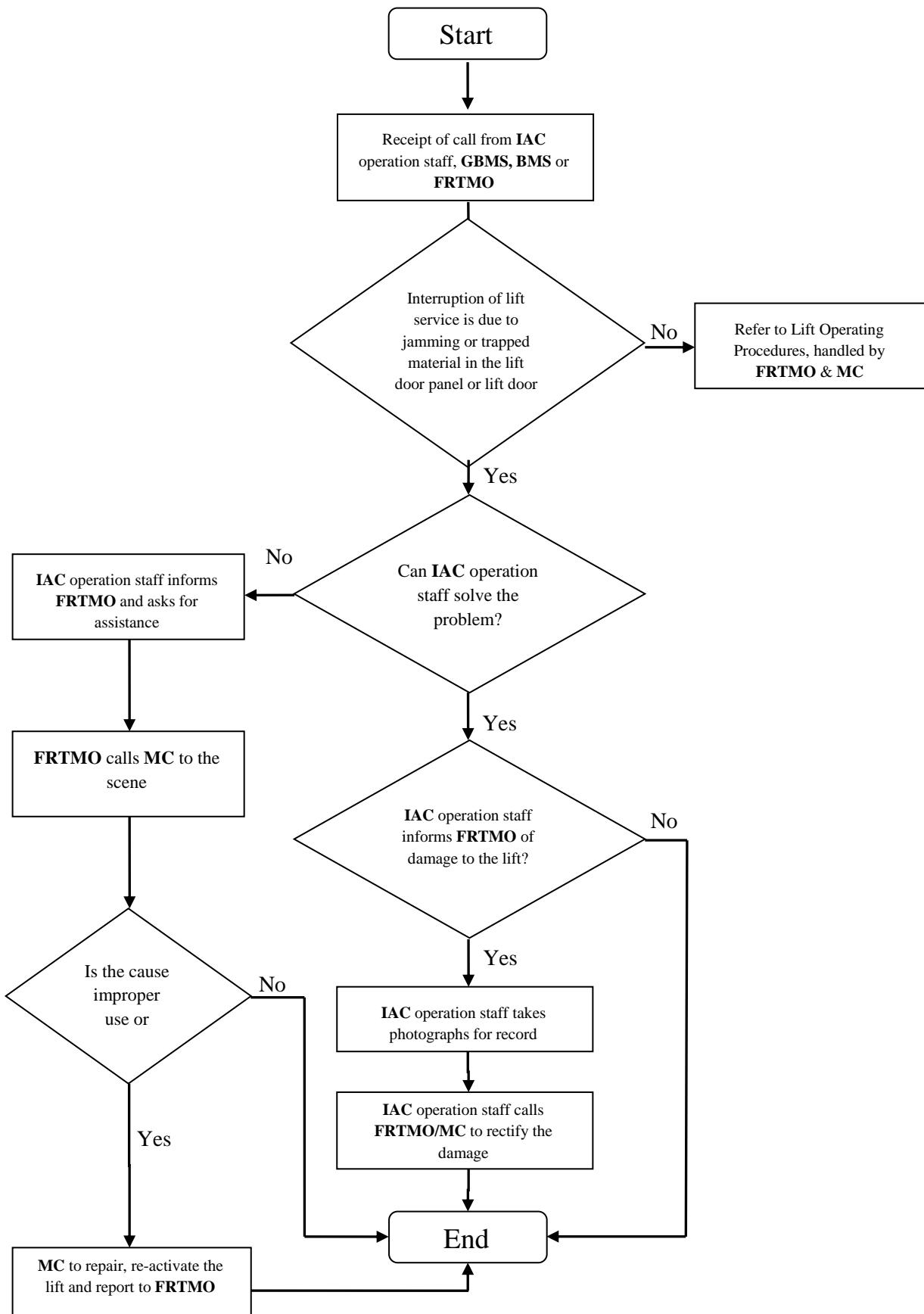
LIFT FAILURE WITH PASSENGERS TRAPPED



INTERRUPTION OR SUSPENSION OF POWER



LIFT SERVICE SUSPENSION



H. Procedures for Handling of Escalators and Moving Walkways Incidents

1.0 Interruption or Suspension of Power

- 1.1 If there is an interruption to or suspension of power, the operation of escalators and/or moving walkways may also be interrupted. If any equipment has stopped, the FRTMO will immediately call the Maintenance Contractor for assistance.
- 1.2 The FRTMO verifies the location by means of the GBMS or BMS having ascertained this from the IAC operation staff.
- 1.3 The FRTMO calls the Maintenance Contractor to diagnose the cause of equipment shut down at the soonest practical time, restore the system to normal operational condition after detailed checking the safety devices and test. The Maintenance Contractor is required to submit an incident report to Building Electrical and Mechanical Team, to report the cause of breakdown and whether remedial/improvement work is required to prevent the recurrence of similar breakdown.
- 1.4 Refer to details of the handling procedures in the attached flow chart.

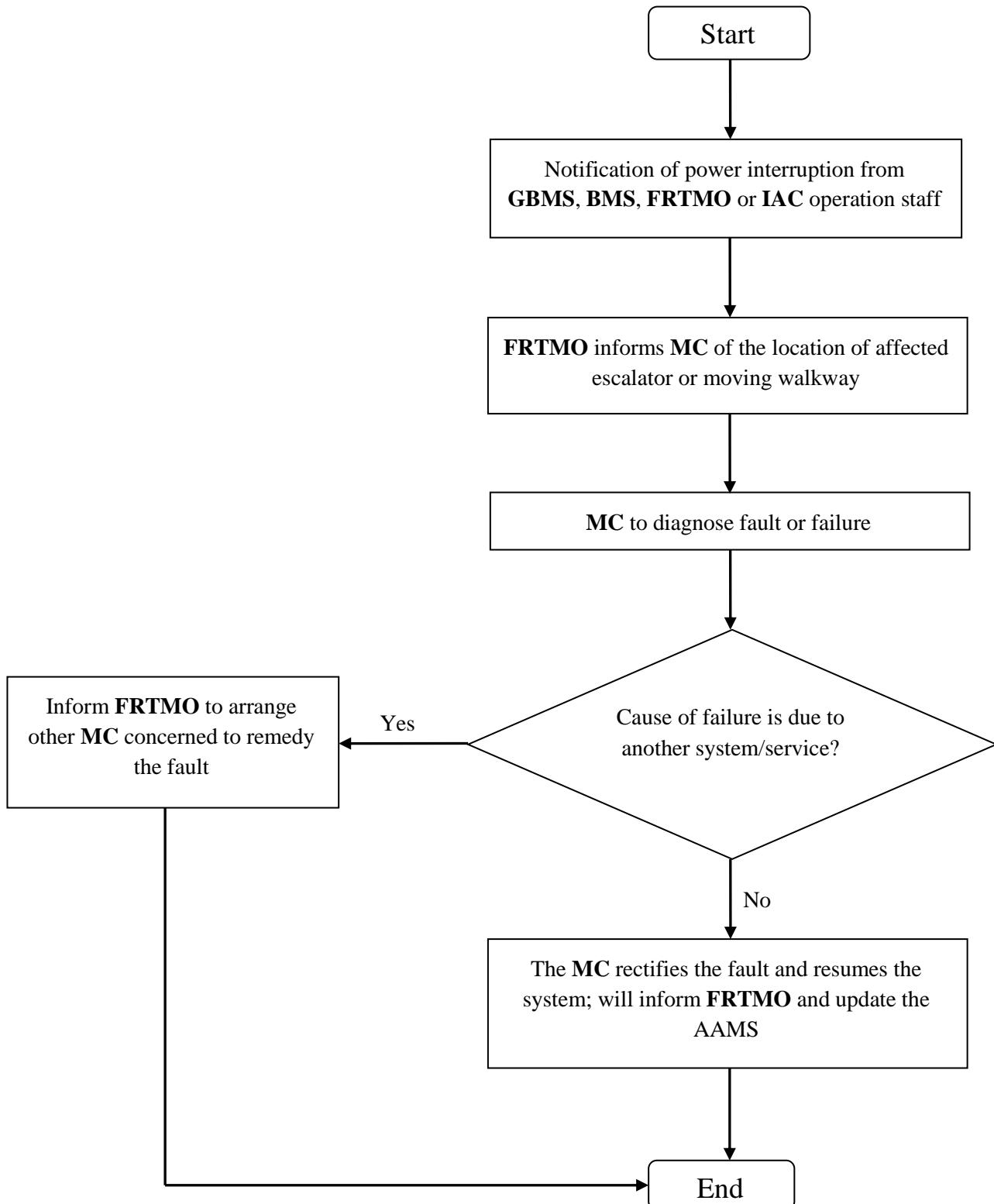
2.0 Interruption or Suspension of Service

- 2.1 If an interruption to or suspension of the escalator or moving walkway service is caused by careless, improper use or machine failure such as accidental or deliberate jamming of the steps or pressing the emergency stop button etc., the FRTMO will immediately call the Maintenance Contractor.
- 2.2 The FRTMO instructs the Maintenance Contractor to diagnose the cause of equipment shut down and resume it at the soonest practical time.
- 2.3 If the incident involved any passenger injury, the Maintenance Contractor is required to submit LE27 to EMSD and report to IAC, TOD, LD and Building Electrical and Mechanical Team in 24 hours. The Maintenance Contractor must submit LE29 to EMSD and a full report to TOD, LD and Building Electrical and Mechanical Team within 7 days after the date on which the Maintenance Contractor notified of the incident.
- 2.4 Refer to details of the handling procedures in the attached flow chart.

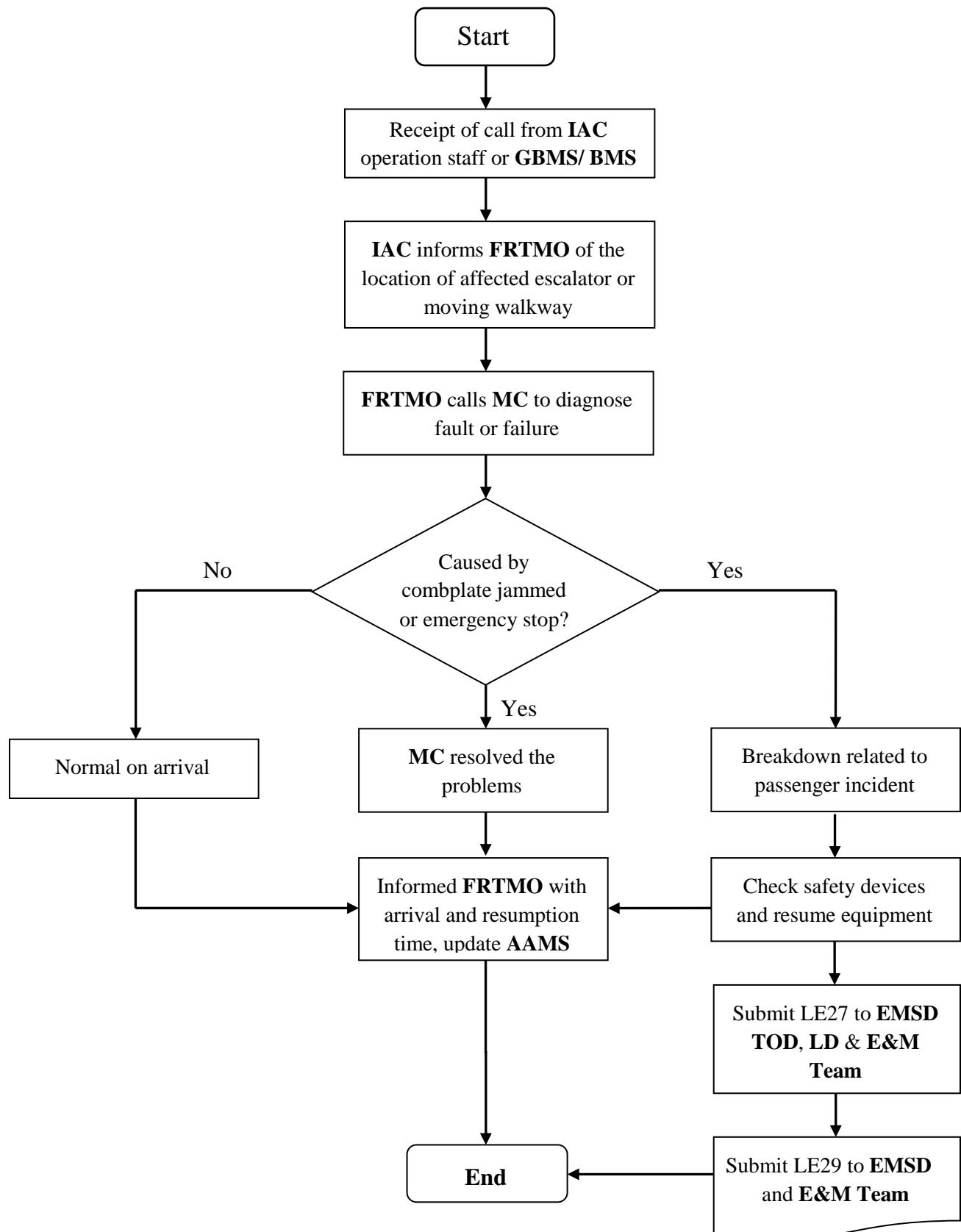
3.0 Management and Administration of the Work

- 3.1 Service Request (SR) is issued to the Maintenance Contractor for works related to 1.0 and 2.0 using the AAMS workstation in accordance with the procedures for “Unplanned Works Orders” set out in the maintenance contract. This type of works order is given a higher priority for the purpose of managing and controlling the workload.
- 3.2 During the repair work, staff from the TSI is responsible for ensuring that the Maintenance Contractor provides all necessary fencing, and posts appropriate notices and temporary signage as required at the location.

INTERRUPTION OR SUSPENSION OF POWER



INTERRUPTION OR SUSPENSION OF SERVICE



End of BCP – B3

Business Continuity Manual

Business Continuity Plan: B4 Major Airport Disruption Preparedness Plan

		Signature	Revision	Effective Date
Updated By	Manager BCP, SSBC	 Mandy Hui		
Reviewed By	Assistant General Manager BCP, SSBC	 Emily Chu	33	Aug 2023
Approved By	General Manager SSBC	 David Jea		

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BCP – B4. Major Airport Disruption Preparedness Plan

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M	Crowd Management – Landside	B4.13
N	Transportation Readiness	B4.14

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A. Introduction

1. The purpose of this document is to provide a systematic airport disruption planning process by which major airport functions are listed out so that coordinated actions can be taken by the airport community in the event of adverse weather conditions like a typhoon or other major airport disruption scenarios like an industrial action or any other incidents that may affect the operations of the airport.
2. Detailed procedures under each airport functions will not be reproduced here; instead, references will be made back to their source documents as held by each responsible department, e.g. :
 - a. FIDS Contingency Procedure for System Failure refers to TOD document TLPM/064.
 - b. Airside Crowd Management Plan refers to TOD document TLPM/073.
3. This document will be updated regularly during the exercising of the various contingency procedures as well as when lessons are learned during actual activations.

B. Dissemination of Emergency Information

1. In the event that major incident happens and causes or may cause disruptions to HKIA, it is of paramount importance to provide useful information to the airport community, airport users and the general public in an efficient manner.
2. The HKIA Emergency Message Broadcast (EMB, Procedure No. TLPM/092) embodied in the Terminal & Landside Procedures Manual describes the system and the arrangement for disseminating HKIA disruption and crisis related information.
3. The procedure details the various means and channels in accordance with the different alert levels to reinforce the practices of information dissemination and communications.
4. Messages to airport users and operators are broadcasted through public announcements and screen/poster displays, while SMS is also used in delivering information to parties concerned in the airport community.
5. Dissemination of the same to the off-airport public is done through the AA website and mobile app.
6. IAC-ADM is responsible to activate the HKIA EMB, as and when required, to provide useful, timely and comprehensive information to airport users and the general public, as well as to notify various airport stakeholders allowing them to prepare and take corresponding actions in accordance with their operational contingency plans.

C. Command & Control – AEC

1. Adverse Weather Scenarios e.g. Typhoons

- a. Plan for and conduct Weather Briefings & Coordination Meetings
 - i. Establish contacts with HKO and obtain latest weather forecasts.
 - ii. Establish initial and subsequent weather briefings and coordination meetings with IAC duty teams and the airport community.
- b. Salient points to be covered in these meetings include :
 - i. Weather forecasts in the next few hours and coming days
 - ii. Establish AEC activation timings
 - iii. Ascertain activations of other command centers e.g. airlines', GHA's, CTO's, etc.
 - iv. Confirm AEC manning levels; e.g. Standby manning levels during the typhoon; full manning levels during recovery of airport operations after passage of the typhoon
 - v. Land transport services arrangements
 - vi. Cross boundary ferry services arrangements
 - vii. Bonded bus services arrangements
 - viii. Airline temporary boarding suspension of transfer passengers on inbound flights
 - ix. Landside crowd management plans
 - x. Airside crowd management plans
 - xi. Activations of airline/GHA care teams
 - xii. Transfer points and service counters contingency plans
 - xiii. Baggage contingency plans
 - xiv. FIDS, PA and other communication contingency plans
 - xv. F&B contingency arrangements
 - xvi. Aircraft mitigation parking arrangements
 - xvii. Departure Holding Procedure
 - xviii. FRCS arrangements
- c. Detailed procedures for planning and conducting these weather briefings and coordination meetings can be found in ADM Typhoon Checklist (H:\IAC\).

2. Industrial Actions and Other Protests Scenarios

- a. Establish the incident's "person-in-charge" and his / her contact information from each relevant external organization as well as from AA internal departments.
- b. Other decisions concerning the AEC includes :
 - i. Specify the AEC activation time and date if possible.
 - ii. Parties and representatives that need to man the AEC.
 - iii. AEC roster pattern should be decided.
 - iv. Dissemination of the AEC activation plan.
 - v. Activation or standby responses specific to the incident, i.e. Flight Rescheduling Control System Team on standby, or, concurrent activations of other command centers from CTO's/GHA's/Police, etc.

- vi. Anticipated duration of incident, hence, of AEC activation so that relevant parties can plan for manpower deployment especially for extended AEC activations.

D. Demonstration Designated Areas: Industrial Actions & Protests

1. Discussions with demonstrators should be carried out in partnership with the Police, the discussion may include:
 - a. The agreed designated area/ routes for their sit in/ procession request.
 - b. The Do's and Don'ts during their sit in/ processions activities.
 - c. Reminder to the organizer that the code of activities and any unlawful activities may cause potential breach of the AA bylaw.
2. Discussions internally with the Police and AVSECO should include facilitation of reporters and press members that will be covering the demonstrations; facilitation may include:
 - a. Designating specific areas for the reporters and press members.
 - b. Designating CAF media relations officers that will be at the sites.
3. Agreed plan should be documented and circulated amongst involved parties, including AA CAF.
4. Duty managers and relevant staff deployed to manage the incident in real time needs to be briefed prior to their coming on shift/arriving on site.
5. Major designated demonstration areas include:
 - a. T1 Level 5 Meeters and Greeters Hall
 - Designated Area 1 – Transition Deck (South/North)
 - Designated Area 2 – Adjacent to the glass wall at Hall B between the binnacle and the directional signage
 - Designated Area 3 – Adjacent to the miniature garden at Hall A
 - b. Landside Areas
 - Car Park 1 – Adjacent to the open area of Limousine Lounge
 - HKIA Tower LG/F – near Visitor Drop-off and Pick-up Area

E. Coordinated Media Communication Plan

1. Adverse Weather Scenarios
 - a. Actively engage with the media throughout and together with the home-based airlines arrange for media briefings on site.
2. Industrial Actions & Protests
 - a. Implement a coordinated media communications plan :

-
- i. Agree with the involved parties / companies on implementation of a coordinated media communications plan.
 - ii. Major stakeholders should include the company involved in the dispute, its parent company if applicable, Police and other government departments as necessary.
 - iii. Confirm that the AEC will be the primary conduit for information exchanges and updates.
 - iv. Designate liaison persons and spokespersons from each party.
 - v. Start working together on various possible scenarios with corresponding key messages as well as stocking up on press kits and lists of potential Q&A's.
 - vi. AA CAF should be driving the coordination process during the development of communication plan and reach out to the involved parties.
- b. Discuss and agree on work processes as well as liaison persons in order to prepare contents and implementation details. For example:
- i. In-Terminal announcements
 - Pre-recorded announcements to be made during incident in English, Cantonese and Mandarin;
 - Electronic emergency notices to be broadcasted via FIDS/baggage reclaim hall/etc. in order to inform arrival passengers of possible impact from the industrial action as well as other important information.
 - ii. In-flight announcements
 - In-flight announcement of incident to prior to landing to inform passengers of special arrangements, etc.
 - iii. Website management
 - Who will alert others of developing situation,
 - What messages should be uploaded,
 - When it should be uploaded,
 - What messages should be deleted and when to delete, etc.
 - iv. Media enquiries e.g. Emergency notices / information / press releases / enquiry numbers to be communicated to media, etc.

F. Security

- 1. Adverse Weather Scenario
 - a. As per existing procedures.
- 2. Industrial Actions & Protests
 - a. Establish coordination meetings with Police and AVSECO to plan for any additional measures required in addition to normal operations e.g. :
 - i. Step up airside vehicle patrols to ensure ramp safety and security is not compromised;
 - ii. Increase its landside patrols to monitor the approaches to the Airport Restricted Area Gate Houses;
 - iii. Reinforce manpower at the Departures and Transfer Screening Points as necessary;
 - iv. Re-deploy (upon request of AA through AEC) additional manpower to assist passengers at T1 (e.g. at the Baggage Reclaim Hall with up to 40 security personnel);

- v. Reinforce manpower at the Level 2 Baggage Hall (by means of shift extension) in order to handle anticipated large numbers of short shipped bags.
- b. Review Police coverage on the Airport Island platform and their protocol in the intervention of any potential breach of the peace.
- c. Discuss and ascertain any additional resources police may be deploying onto the Airport Island platform e.g. a platoon from NTS Emergency Unit to reinforce the airport police deployment.
- d. Establish if any external guarding companies are to be employed, especially by the company involved in the dispute and ensure their command and operational leaders are made known to AEC / Police / AVSECO.

G. Airfield Readiness

1. Adverse Weather Scenarios
 - a. Ramp Operations
 - i. Review weather forecasts and anticipated scale of impacts with relevant parties.
 - ii. Salient points to be covered include :
 - Vehicle protective screens
 - Worksite inspections against FODs
 - RHO's and LMO's secure equipment, loose objects, secure/reposition aircraft, coordinate with LMO / BAC to arrange aircraft ballasting etc.
 - Coordinate with TSI on storm drains, oil traps, runway facilities, etc.
 - Review airbridge operations against measured wind speeds
 - Coordinate with RHO's and CTO's on dolly recirculation arrangements
 - Detailed procedures in IAC-Airfield typhoon checklist and other relevant Airfield Department documents.
 - b. Mitigation Parking Arrangement
 - i. Review weather forecasts and anticipated scale of impacts with CAD-ATMD, RHO's, CTO's and LM franchisees.
 - ii. Review agreed upon contingency procedures and communication channels.
 - iii. Detailed procedures in relevant Airfield Department documents.
 - c. Departure Holding Procedure (DHP)
 - i. According to the parking stand availability and the number of arrivals / departures of the next hour, the stand allocation staff at ACC should be able to predict the criticality of the parking stand situation of the next hour. If full apron situation is expected, inform ATC to activate DHP immediately. It is agreed with airlines and ATC that when full apron situation occurs, aircraft that is expecting to take-off within 60 minutes can be pushed back and lining up at taxiway rather than waiting at parking stand.
 - ii. Departure Holding Procedure refers to Airfield Department Full Apron Contingency Procedures (Manual No.: ACC-1003-R)

- d. Acceptance of Arrival Traffic
 - i. When significant reduction of runway capacity and/or shortage of aircraft stands occur or expected, cease accepting arrival traffic from nearby ports can be considered in consultation with CAD-ATMD.
- e. Flight Rescheduling Control System
 - i. Review weather forecasts and anticipated scale of impacts with CAD-ATMD, AOC and GHA's.
 - ii. If deemed necessary, standby AA, HK base carriers and GHA's FRCS teams.
 - iii. Detailed procedures refer to EPM FRCS contingency procedures.

2. Industrial Actions & Protests

- a. Airlines / GHA's coordination – Discuss and agree upon any additional manpower deployment and / or specific work processes aimed at mitigating anticipated passenger, baggage, cargo or aircraft congestions e.g. :
 - i. Deploy additional and sufficient airline and GHA staff at baggage reclaim area to assist passengers.
 - ii. Make in-flight announcements concerning the industrial action before aircraft lands at HKIA to ensure passengers are given latest developing information as well as to start managing their expectations with possible service disruptions / delays.
 - iii. Airlines to activate its own office support team to assist passengers at baggage reclaim area, departing gates, arrival gates, transfer desks, check-in counters and any other areas where passengers may need the airline's assistance.
 - iv. Additional manpower from GHAs, other airlines, RHOs, CTOs, AA and / or external parties to assist in anticipated congestion areas.
- b. Ramp Operations – Discuss and agree upon any additional manpower deployment and / or specific work processes aimed at mitigating aircraft handling issues that may impact upon passenger, baggage, cargo or aircraft congestions e.g.:
 - i. Prior coordination arrangement made amongst RHOs for possible cross and / or pool handling.
 - ii. Discuss and agree upon special communication processes that may be used during the disruption.
 - iii. If necessary, distribution of personal mobile phones and / or Tetra units.
 - iv. Review and agree upon addition ramp manpower deployment with special attention to multiple capabilities e.g. airbridge operations by RHO's / AA staff, aircraft door opening by qualified ramp and catering staff, refueling operations, cabin cleaning operations, etc.
 - v. Review needs for additional cargo staging areas at cargo apron and L-stands.

H. Baggage Readiness

1. Adverse Weather Scenarios

- a. Review weather forecasts and anticipated scale of impacts with AOC, GHAs, RHOs, AVSECO and other relevant baggage handling parties.
 - b. Detailed procedures refer to relevant APM and Baggage Department baggage handling contingency procedures.
2. Industrial Actions & Protests
- a. Review additional staging areas (e.g. ITCI destuffing area) to handle overflow bags.
 - b. Review and agree upon priority with RHO/ airlines to handle baggage among arrival flights, departure flights and transfer flights.
 - c. Review and if necessary, arrange for additional manpower from other on-airport and external contractors.
 - d. Discuss, agree and circulate amongst relevant stakeholders a manpower deployment plan showing deployment of additional staff to locations such as the problem/late areas and problem carousels to handle overflow and dieback baggage. Deploy manpower to monitor lateral and problem carousel full situation. Offload overflow bags from departure laterals and problem carousels to assigned staging areas if necessary.
 - e. Review and organize, if necessary, additional ABD staff will be added from the office and duty to keep the baggage handling system running in full capacity.

I. FIDS Readiness

1. Review weather forecasts and anticipated scale of impacts with AOC, GHA's, RHO's and other relevant parties.
2. Review agreed upon contingency procedures and communication channels.
3. Detailed procedures can be found in TOD documents :
 - a. TLPM/064 FIDS Contingency Procedure For System Failure

J. F&B Readiness

1. Review weather forecasts and anticipated scale of impacts with AOC, RAD and terminal F&B outlets.
2. Discuss and agree upon extension of F&B operational hours, if necessary.
3. Ensure sufficient supplies delivery to relevant F&B outlets.

K. PCT Readiness

1. Ascertain if AA PCT teams are to be deployed; if yes, ensure :
 - a. PCT team leaders are briefed on the overall situation.
 - b. PCT Leaders to contact CAF members upon PCT activation so that CAF can include them in the information distribution, to keep abreast of developing situation and able to brief their team members of the latest updates.
 - c. Activation date and time are disseminated to all teams.
 - d. Supplies of bottled water, snacks (if necessary) & blankets are available and not time-expired.
2. Ascertain if other care teams e.g. from airlines, are to be deployed and if so, ensure:
 - a. Roles and responsibilities of each party
 - b. Areas of operations
 - c. Communication channels
 - d. Liaison contacts / chain of command
 - e. Distribution of water & snacks to be coordinated with distribution of meal vouchers & lounge invitations

L. Crowd Management – Airside

1. Review weather forecasts and anticipated scale of impacts with AOC, GHA's, Police, AVSECO and ADM.
2. Review and confirm on contingency arrangements including :
 - a. Airline to suspend uplifting of transfer passengers on inbound flights
 - b. E1, E2 and West Hall transfer area contingency set-up and management
 - c. L6 Airline Services Desks contingency set-up and management
 - d. If necessary, Transit Advice Card distribution, use and management
 - e. If necessary, Pre-planned L6 Designated Zoning Plan activation and management
 - f. WIDS and FIDS (Way Finding) contingency activation and updates
 - g. Deployment and coordination of AA / airlines' care teams

- h. Step up cleaning frequencies / staffing
 - i. Actions to take upon a medical emergency
 - j. On-site liaison as well as AEC coordination
 - k. Ascertain if other care teams are to be deployed e.g. from airlines, Civil Aid Service, Auxiliary Medical Service, St John, Red Cross, etc.
 - l. If there is a multi-agency response, establish :
 - i. Roles and responsibilities of each organization
 - ii. Areas of operations
 - iii. Communication channels
 - iv. Chain of command
 - v. Coordination and liaison
3. Detailed procedures refer to TOD documents :
 - a. TLPM/073 Airside Crowd Management Plan
 - b. TLPM/031 Ambulance Case Handling
 - c. TLPM/033 Passenger Care Team Mobilization, Operations and Communications
 - d. Cleaning Services Contracts at T1
 4. In the occasion of full apron and a large number of departure flights are not assigned with boarding gates, departure flights of airlines operating at the T1 Midfield Concourse will be assigned to Gate 209. Airlines and Ground Handling Agents concerned will provide assistance to their passengers at the Airline Service Counter right next to Gate 209.

M. Crowd Management – Landside

1. Review weather forecasts and anticipated scale of impacts with AOC, GHA's, Police, AVSECO and ADM.
2. Review and confirm T1 contingency arrangements including :
 - a. L7 Departure Level check-in aisles at T1
 - b. L7 Departure Level up-ramp areas at T1
 - c. L6 transition decks at T1
 - d. AEL platform lobby
 - e. Location and posting of directional signage at all relevant areas

- f. FIDS contingency procedures and updates
 - g. Deployment and coordination of AA / airlines' care teams
 - h. Maximize landside trolley recirculation
 - i. Step up cleaning frequencies / staffing
 - j. Actions to take upon a medical emergency
 - k. On-site liaison as well as AEC coordination
 - l. Ascertain if other care teams are to be deployed e.g. from airlines, Civil Aid Service, Auxiliary Medical Service, St John, Red Cross, etc
 - m. If there is a multi-agency response, establish :
 - i. Roles and responsibilities of each organization
 - ii. Areas of operations
 - iii. Communication channels
 - iv. Chain of command
 - v. Coordination and liaison
3. Detailed procedures refer to TOD and LD documents :
- a. TLPM/081 Landside Crowd Management Procedure
 - b. TLPM/031 Ambulance Case Handling
 - c. TLPM/033 Passenger Care Team Mobilization, Operations and Communications
 - d. TLPM/025 Landside Baggage Trolley Re-circulation
 - e. Cleaning Services Contracts at T1

N. Transportation Readiness

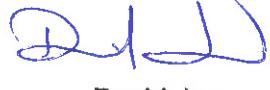
1. Review weather forecasts and anticipated scale of impacts with Police, MTR, bus franchisees, taxi associations, coach operators, roadside management operator and other relevant parties.
2. Review and confirm transportation arrangements including :
 - a. Routes and services prior to typhoon reaching HKG
 - b. Routes and services during typhoon
 - c. Post – typhoon resumption of routes and services
 - d. Extension of services beyond regular operating hours
 - e. No Land Link contingency plans for passengers, workers & cargo
3. Detailed procedures can be found in following documents :
 - a. TLPM/028 Landside Transport Emergencies
 - b. TLPM/045 Taxi Operation Procedures

End of BCP – B4

Business Continuity Manual

Business Continuity Plan: B5

Terminal Evacuation & Recovery

		Signature	Revision	Effective Date
Updated By	Assistant General Manager TOD	 Joanne Ma		
Updated By	Assistant General Manager LD	 Chris Chan		
Updated By	Assistant General Manager AD	 Albert Ho	32	Jun 2023
Reviewed by	Assistant General Manager BCP, SSBC	 Emily Chu		
Approved by	General Manager SSBC	 David Jea		

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A. TERMINAL EVACUATION & RECOVERY (TER)

1.0 Introduction

1. Passenger Terminal Building (PTB)

The Airport Authority Emergency Procedures Manual (EPM) lists several scenarios whereby the Passenger Terminal Building (PTB) which include Terminal 1 (T1) & Sky Bridge, T1 Midfield Concourse (T1M) and T1 Satellite Concourse (T1S) may be partially or fully evacuated:

- a. Fire
 - b. Bomb threats
 - c. Terrorist/ security incidents
 - d. CBRN (Chemical, Biological, Radiological, Nuclear) Agent Incident
2. A partial or a full evacuation of the PTB shall primarily make use of established building fire evacuation procedures, unless otherwise decided upon by the organization making the evacuation decision.
 3. A partial evacuation may involve only a few hundred or thousand passengers, meeters and greeters, tenants and staff members.
 4. A full evacuation of the PTB may involve tens of thousands of people.
 5. The evacuees may constitute a very diverse group of people as some may be passengers who are outbound, some may be inbound, and some may have cleared outbound/ inbound formalities while others may not have.
 6. As such, any PTB post-evacuation activities of the PTB need to take into consideration the prompt recovery of passengers and staff as well as an efficient return of the PTB back to its normal operational status.
 7. In this respect, the policies and processes documented are intended to guide all relevant parties to write their own specific procedures for the efficient recovery of passengers, meeters and greeters, tenants and staff members after a partial or a full PTB evacuation as well as to quickly return the PTB back to normal operations.
 8. Detailed procedures of each responding party may be found in the relevant manuals of the response parties.
 9. In addition to the evacuation and recovery of people from the PTB, resources may also be needed in order to maintain inbound and outbound passenger and baggage flows if the runways are still active.
 10. Business continuity plans of respective AA departments and business partners will need to be activated under this situation.
 11. For SkyPier Terminal Evacuation and Recovery, refer to Terminal & Landside Procedures Manual, Procedure No. TLPM/086 Section 23 for details.

B. ROLES & RESPONSIBILITIES

1.0 AA Terminal Operations Department (TOD)/ Landside Department (LD)

1. Act as the Incident Coordinator to manage the evacuation as well as establish and manage an efficient recovery of passengers and staff and return the PTB back to normal operational status.
2. Act as the Evacuation Coordinator at the landside Fire Assembly Points (FAP) and conduct a primary identification and recovery of staff and passengers.
3. Set up a Temporary Holding Area (e.g. West Hall, Indoor Carpark, etc.) to facilitate the passenger identification and recovery process.
4. Coordinate the resources required for the recovery process at the landside FAPs and the Temporary Holding Area.
5. Coordinate with airlines, Immigration, Customs & Excise, Police and AVSECO during the recovery process.
6. Coordinate the crowd management at landside FAPs and the Temporary Holding Area.
7. Establish and man the Joint Liaison Post at the Temporary Holding Area.
8. Provide special signage (e.g. in the Immigration Hall, Indoor Carpark, etc.) to guide the evacuees as required.
9. Activate the Family Reception Centre if required.
10. Call out the AA Passenger Care Team (PCT) to assist passengers at the Family Reception Centre if it is activated.
11. Coordinate with medical centre if first-aid post or medical assistance is required at Temporary Holding Area.

2.0 AA Airfield Department

1. Act as the Evacuation Coordinator at the airside FAPs and conduct a primary identification and recovery of staff and passengers.
2. Inform and coordinate with ATC and airlines in alerting parked aircraft in the vicinity of the affected area.
3. Coordinate the resources required for the recovery process at the airside FAPs.
4. Arrange transportation to convey the passengers from airside FAPs to the Temporary Holding Area (e.g. West Hall, Indoor Carpark, etc.).
5. Coordinate crowd management at airside FAPs.
6. Traffic control and cordoning at the airside FAPs.
7. Attend to the Joint Liaison Post at the Temporary Holding Area.

3.0 AA Corporate Affairs Department

1. Implement the AA media management plans.
2. Coordinate with all involved parties in the management of press enquiries.
3. Coordinate with all involved parties in the drafting and issue of press releases.

4.0 AA Technical Services Infrastructure

1. Deploy appropriate resources to assist and support the PTB evacuation and recovery processes.

5.0 Immigration Department

1. Assign designated immigration channels to process the evacuated passengers as required.
2. Deploy Immigration officers to the Joint Liaison Post at the Temporary Holding Area as designated by AA to act as liaison officer.

6.0 Customs & Excise Department

1. Deploy C&E officers to landside FAPs to clear staff and passengers evacuated from the airside if required.
2. Deploy officers to the Joint Liaison Post at the Temporary Holding Area as designated by AA to act as liaison officer when Customs assistance is required or Customs facilities are temporarily inoperative.

7.0 Airport Police

1. Coordinate with AA Incident Coordinator for the crowd management at FAPs, Temporary Holding Area, and Family Reception Centre (if activated).
2. Traffic control and cordoning at landside FAPs.
3. Deploy Police officers to the Joint Liaison Post at the Temporary Holding Area as designated by AA to act as liaison officer.
4. Conduct debriefing to the evacuated staff and passengers at the Temporary Holding Area if there is suspicion to the cause of the evacuation.
5. Support the operation of the Family Reception Centre if it is activated.

8.0 AVSECO

1. Assist in the cordoning and crowd management at FAPs and the Temporary Holding Area.
2. Assist in conveying evacuees from FAPs to the Temporary Holding Area as designated by AA.
3. Contain the evacuees at the airside FAPs to avoid injuries with moving equipment and operational aircraft.

4. Maintain airport security integrity throughout the recovery process (e.g. enhance patrol etc.).
5. Conduct security sweep if necessary.
6. Escort passengers to the Arrival Immigration Hall/ Departure Immigration Hall/ Baggage Reclaim Hall etc. if situation requires.
7. Deploy staff to the Joint Liaison Post at the Temporary Holding Area to act as Liaison Officer.
8. Assist in crowd control in the Family Reception Centre if it is activated.

9.0 Airlines / Ground Handling Agents (GHA)

1. Ensure the care and welfare of the passenger evacuees.
2. Provide assistance to the passengers who do not wish to continue their journey.
3. Assist passengers in respect of onward journey rearrangement.
4. Assist in the passenger identification and recovery process.
5. Deploy staff to the Joint Liaison Post at the Temporary Holding Area to act as liaison officer.
6. Assist airside passengers who have been evacuated to the landside FAPs with Immigration formalities.
7. Activate their respective telephone enquiries centre if required.
8. Assist in the operation of the Family Reception Centre if it is activated.

C. PARTIAL BUILDING EVACUATION – AIRSIDE: RECOVERY PROCESS

1.0 Building Evacuation

1. Established building evacuation procedures will be used to evacuate from affected parts of the PTB.
2. AD staff will be responsible at airside FAPs to manage the evacuees.
3. If an orderly pre – planned evacuation from the PTB is needed (e.g. ordered by the Police in a bomb threat scenario), another evacuation method may be called for and instructed to all by the authority ordering the evacuation.
4. The existing fire evacuation strategy allows no landside passengers/ staff to be evacuated to the airside. Therefore, all evacuees at the FAPs will be from the airside.

2.0 Recovery Process at Airside FAPS

2.1 General Information

1. The flow of the recovery process at the airside FAPs is illustrated in Appendix 1.

2. Evacuees at airside FAPs may comprise one or more of the following groups of people:
 - a. Staff (including those airport visitors with Visitor Pass under the escort of ARA permit holder)
 - b. Departing passengers cleared Immigration and security
 - c. Arriving passengers on transit/ transfer
 - d. Arriving passengers not yet cleared Immigration and Customs

2.2 Separation of Evacuees

1. With the assistance of AVSECO, AD Evacuation Coordinator at the airside FAP(s) will carry out a preliminary identification check to separate staff from passengers amongst the evacuees.
2. The AD Evacuation Coordinator will in conjunction with Fire Services Department and Police to confirm if there are evacuation injuries.
3. Information concerning the injured must be quickly passed to the IAC/ AEC.
4. Immigration, Customs and Police must be informed if the injured include those that have not cleared landing formalities and taken to hospitals.

2.3 Staff Management

1. A roll call of all affected tenants will need to be conducted by the AD Evacuation Coordinator as per standard fire evacuation procedures.
2. Uninjured staff members will be released by the AD Evacuation Coordinator immediately after the roll call if Police debriefing is not required.

2.4 Passenger Management

1. Uninjured passengers will be, under the escort of AVSECO, conveyed to a Temporary Holding Area for further assistance.
2. Ensuring information concerning injured passengers that have been taken to hospitals is relayed to the IAC/ AEC as soon as possible.

2.5 Temporary Holding Areas

1. In general, the designated Temporary Holding Area for respective FAPs are as illustrated in Appendix 5, 6 & 7:

	Airside FAPs	Designated Temporary Holding Area
a.	➤ Airbridge FAPs #1 – 4, 11, 23, 25 & 27; ➤ FAPs F & G	T1 Departure APV Lounge (South)

b.	<ul style="list-style-type: none"> ➢ Airbridge FAPs #5 – 10, 12, 24, 26, 28; ➢ FAPs J & K 	T1 Departure APV Lounge (North)
c.	<ul style="list-style-type: none"> ➢ Airbridge FAPs #29 – 71; ➢ FAP H 	T1 Level 4 West Hall
d.	<ul style="list-style-type: none"> ➢ Airbridge FAPs #13 - 21 	T1S Level 4 Arrival Hall
e	<ul style="list-style-type: none"> ➢ Airbridge FAPs #201-219 ➢ FAPs 211A, 211B, 300A & 300B 	T1M Departure APV Lounge

2. As circumstances dictate, the AA ADM may designate more than one holding area or even an unaffected part of the PTB as the alternative Temporary Holding Area to the above allocation.
3. AD will arrange with the airside bus contractor to convey passengers from the airside FAP to the Temporary Holding Area.
4. With assistance of the airlines/ GHAs, AVSECO, AA will carry out a secondary identification process at the Temporary Holding Area, in separating arriving passengers and departing passengers.
5. Departing and transit/ transfer passengers with relevant boarding pass will be directed to the departure concourse of the PTB via the nearest security screening channel.
6. Passengers who do not want to continue their journey or have a need for flight re-arrangement will be directed to the relevant airlines/ GHAs for assistance.
7. Departing and transit/ transfer passengers without boarding pass will be directed to relevant airlines/ GHAs for assistance.
8. Airlines/ GHAs are required to account for the passengers going on board their aircraft during the recovery process.
9. Arriving passengers will be directed to the Arrival Immigration Hall for immigration clearance.
 - a. Should both of the Arrival Immigration Halls are temporarily inoperative, immigration and customs clearance will be done at the Temporary Holding Area or any other venues as directed by AA ADM in consultation with Immigration and C&E.
 - b. AA will provide the logistics support to facilitate the passengers clearance.
10. A Joint Liaison Post will be set up at the Temporary Holding Area with representatives from airlines/ GHAs, Police, AVSECO and AA to coordinate the resources required and ensure an efficient recovery process.
11. Evacuation under adverse weather conditions may result in physical discomfort for some evacuees

- a. Considerations should be made for the extension of humanitarian assistance.
- b. Activation of the AA Passenger Care Team may be needed for deployment to the Temporary Holding Areas.
- c. Ensuring provision of drinking water and blankets if required.

2.6 Business Continuity Plans (BCP)

- 1. All affected departments are to immediately activate their business continuity plans to ensure minimal disruption to passenger and baggage flows.

D. PARTIAL BUILDING EVACUATION – LANDSIDE: RECOVERY PROCESS

1.0 Building Evacuation

- 1. Established building evacuation procedures will be used to evacuate from affected parts of the PTB.
- 2. LD staff will be responsible at landside FAPs to manage the evacuees.
- 3. If an orderly pre – planned evacuation from the PTB is needed (e.g. ordered by the Police in a bomb threat scenario), another evacuation method may be called for and instructed to all by the authority ordering the evacuation.
- 4. The existing fire evacuation strategy allows potentially both airside and landside passengers and staff to be evacuated onto landside FAPs.

2.0 Recovery Process at Landside FAPS

2.1 General Information

- 1. The flow of the recovery process at landside FAPs is illustrated in Appendix 2.
- 2. Evacuees at landside FAPs comprise one or more of the following groups of people:
 - a. Staff from landside
 - b. Staff from airside
 - c. Departing passengers not check-in yet
 - d. Departing passengers checked in but not yet cleared Immigration
 - e. Departing passengers cleared Immigration
 - f. Transfer/ transit passengers
 - g. Arriving passengers not yet cleared Immigration and Customs
 - h. Arriving passengers cleared Immigration but not Customs
 - i. Arriving passengers cleared Immigration and Customs
 - j. Meeters & greeters or general public in the landside

2.2 Separation of Evacuees

1. With the assistance of AVSECO, LD Evacuation Coordinator at the landside FAP(s) will carry out a preliminary identification check and separation of staff and Meeters/ Greeters from passengers amongst the evacuees.
2. The LD Evacuation Coordinator will work in conjunction with the Fire Services Department and Police to confirm if there are evacuation injuries.
3. Information concerning the injured must be quickly passed to the IAC/ AEC.
4. Immigration and Customs must be informed if any injured including passengers that have not cleared landing formalities or staff from airside and taken to hospitals.

2.3 Staff Management

1. Staff evacuated from landside will be released by the Evacuation Coordinator immediately after the roll call if the Police debriefing is not required.
2. Staff evacuated from airside however will be subject to customs clearance before released by the Evacuation Coordinator.
 - a. Customs will deploy officers to the FAP to facilitate the clearance process.
 - b. Information on injured staff taken to hospitals must be quickly passed to IAC/ AEC for relaying to Customs.

2.4 Meeters/ Greeters Management

1. Meeters/ greeters will also be released from the landside FAPs immediately if Police debriefing is not required.

2.5 Passenger Management

1. Passengers will be further divided into departing, arrival and transit/ transfer passengers.
2. Departing passengers will be escorted by AVSECO to a Temporary Holding Area for further processing.
3. The following areas have been identified as options for the Temporary Holding Area for departing passengers:
 - a. PTB T1 Level 7 End of Check-in Aisle A or L (Appendix 3) or any other area as designated by the AA.
 - b. Any other area as designated by AA ADM e.g. Limousine Lounge.
4. Departing passengers not yet cleared by Immigration before the evacuation:
 - a. Passengers with valid boarding pass will be directed to go through normal immigration channels for clearance

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- b. Passengers without valid boarding pass will be directed to the relevant airlines/ GHAs for assistance.
5. Departing passengers already cleared by Immigration before the evacuation:
 - a. Passengers with valid boarding pass should be segregated from other normal passengers. Airlines/ GHAs should inform Immigration and present them for formalities.
 - b. For help through cases, relevant airlines/ GHAs will be responsible for handling passenger who needs assistance.
 - c. Departing passengers, who do not want to continue their journey or have a need for flight re-arrangement, will be directed to relevant airlines/ GHAs for assistance and processing of any applicable Immigration and Customs formality.
 - d. Departing passengers without valid boarding pass will be directed to relevant airlines/ GHAs for assistance.
6. As an audit trail, airlines are required to submit to Immigration Department a no-show list of passengers of affected flights during the time of the incident.
7. Transit/transfer passengers will also be escorted by AVSECO from the FAP to the Temporary Holding Area on Level 7 of PTB.
 - a. They should be segregated from other normal passengers.
 - b. Immigration will be notified by AVSECO/ relevant airlines/ GHAs in advance before the passengers are presented to Immigration for clearance.
 - c. Transit/transfer passengers without valid boarding pass will be directed to relevant airlines for assistance.
8. Arriving passengers will be escorted by AVSECO from the FAP to a Temporary Holding Area for further processing.
9. The following areas have been identified as options for the Temporary Holding Area for arriving passengers:
 - a. Level 5 Group Pick up Area at Meeters and Greeters Hall A & B (Appendix 4); or
 - b. Any other area as designated by the AA ADM.
10. Arriving passengers who have not cleared the immigration and customs formalities will be escorted by AVSECO via the nearest Level 5 Staff Channel to a designated area in the Arrival Immigration Hall for the immigration clearance.
 - a. Immigration will assign special channels to process this group of passengers so that they are not mixed with normal arriving passengers.

- b. Normal security screening will apply wherever applicable.
- 11. Arriving passengers who have cleared immigration but not customs formalities will be escorted by AVSECO via the nearest Level 5 Staff Channel to the Baggage Reclaim Hall for Customs clearance.
- 12. Airlines/ GHAs will assist AVSECO at the staff channel to verify the flight ticket or boarding pass of the passengers before allowing entry.
- 13. In the unlikely event that evacuees have been mistakenly taken into the airside, they will be handed over to AVSECO who will escort them back to landside upon completion of appropriate clearance by responsible parties i.e. Immigration, C&ED, Police and respective airline.
- 14. A Joint Liaison Post will be set up to coordinate the resources required at the Temporary Holding Area with representatives from airlines, Police, AVSECO and AA.
- 15. In case the evacuation of the airside passengers is involved, the presence of Immigration representative is also required at Joint Liaison Post.
- 16. Should the Immigration and Customs facilities become temporarily inoperative due to evacuation from those areas, immigration/ customs clearance will be done at the Temporary Holding Area or any other locations as directed by AA ADM in consultation with the Immigration and Customs.
- 17. AA will arrange the set up and logistics support at these temporary holding areas in consultation with Immigration and Customs as required.

2.6 Temporary Holding Areas

- 1. In general, the designated Temporary Holding Area for respective FAPs are as follows:

	Landside FAPs	Designated Temporary Holding Area
a.	A, B & C	T1 Level 5 Tourist Pick Up Area (M&G Hall A); T1 Level 7 End of Check-in Aisle L
b.	D & E	T1 Level 5 Tourist Pick Up Area (M&G Hall B); T1 Level 7 End of Check-in Aisle A

- 2. In addition and as circumstances dictate, the AA ADM may designate more than one holding area or even an unaffected part of the PTB as the alternative Temporary Holding Area to the above allocation.
- 3. With the assistance of AVSECO, LD Evacuation Coordinator at the landside FAP(s) will separate staff and Meeters/ Greeters from passengers amongst the evacuees.
- 4. Evacuation under adverse weather conditions may result in physical discomfort for some evacuees.

- a. Considerations should be made for the extension of humanitarian assistance.
- b. Activation of the AA Passenger Care Team may be needed for deployment to the Temporary Holding Areas.
- c. Provision of relief items e.g. blankets is required.

E. TOTAL PTB EVACUATION: RECOVERY PROCESS

1.0 Building Evacuation

1. Established building evacuation procedures will be used to evacuate the PTB.
2. A total evacuation of the PTB may result in tens of thousands of evacuees.
3. These evacuees should be gathered together at both airside and landside FAPs.
4. As such, both airside and landside evacuation procedures will need to be put into action.
5. LD staff will be responsible at landside FAPs to manage the evacuees.
6. AD staff will be responsible at airside FAPs to manage the evacuees.
7. If an orderly pre – planned evacuation from the PTB is needed (e.g. ordered by the Police in a bomb threat scenario, etc.), another evacuation method may be called for and instructed to all by the authority ordering the evacuation.

2.0 Recovery Process

2.1 General Information

1. A total evacuation of the PTB may necessitate alternative management of passengers and bags for inbound and outbound flights for a significant length of time.
2. With the potential for tens of thousands of evacuees, the emphasis is on all responding parties to use their common sense and good judgment based upon a thorough understanding of the evacuation and recovery process to bring about an efficient and effective management of the crisis.
3. One guiding principle is to disperse evacuees away from the airport environment as soon as practical.
4. With the PTB no longer in use, all Police, Immigration, Customs and other related functions will need to take place in the Temporary Holding Area.
5. The designated Temporary Holding Area for a total PTB evacuation is the third and fourth floor of the covered carpark located next to the Regal Airport Hotel.
6. In the unlikely event that use of the AEC is prevented, ADM will make arrangements for the use of the AA Mobile Liaison Centre as an alternative means

2.2 Separation of Evacuees

1. Separation of the evacuees will be similar to the procedures for airside and landside partial evacuations.
2. Transportation will need to be arranged to take evacuees at airside FAPs to landside.

2.3 Staff Management

1. Staff from landside work areas will be released from the landside FAPs immediately if Police debriefing is not required.
2. Staff from airside work areas is to be released from the landside FAPs after Police's debriefing if required and Customs' clearances.

Customs will advise on clearance arrangement for those staff working airside which may take place either at the FAPs or at another location as designated by Customs and Excise Department

2.4 Meeters/ Greeters Management

1. Meeters/ greeters will also be released from the landside FAPs immediately if Police debriefing is not required.
2. Released Meeters/ Greeters should be encouraged to leave the Airport immediately and call the airlines for information on arriving flights and passengers.

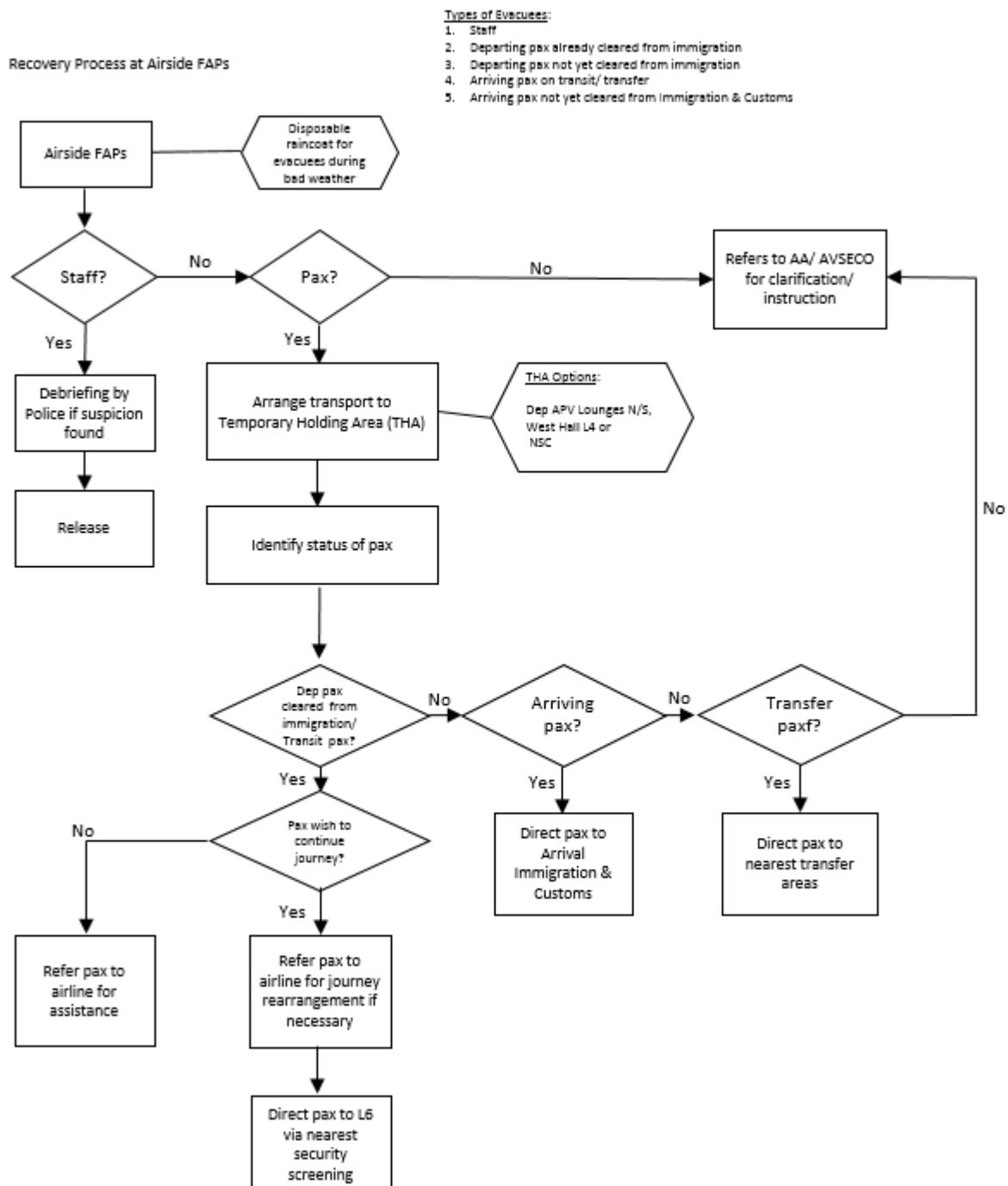
2.5 Passenger Management

1. Outbound passengers who have not checked in or who have checked in and have not yet gone through Immigration should be encouraged to go home or to a hotel.
 - a. Advise them to call their respective airlines for information on rescheduled flights, return of checked bags, etc.
 - b. Direct them to appropriate transportation locations.
2. Inbound passengers who have cleared landing formalities should be encouraged to leave the airport immediately.
 - a. Advise them to call their respective airlines for their bags arrangement.
 - b. Direct them to appropriate transportation locations.
3. All other passengers will be escorted/ directed to the designated Temporary Holding Area (fourth floor of the covered carpark next to the Regal Airport Hotel).
4. AD to arrange transportation to take evacuees at airside FAPs out to the designated Temporary Holding Area.

2.6 Temporary Holding Areas

1. The designated Temporary Holding Area is the third and fourth floors of the covered carpark next to the Regal Airport Hotel.
2. The fourth floor is designated for use by Police, Immigration, Customs, etc. in their management of evacuees.
3. The third floor is designated for use by airlines in assisting passengers with flight rescheduling, baggage reclaim, etc.
4. LD to delineate and set up respective work areas for all involved parties on both floors.
5. LD to coordinate with AVSECO and AD on evacuees' flow from the various FAPs to the Temporary Holding Area and subsequent flow path through the various involved parties' work areas :
 - a. Fourth Floor: Police work area
Immigration clearance area,
C&E clearance area,
 - b. Third Floor: airline assistance,
 - c. Ground Floor: transportation and dispersal from airport environment
6. Ground transportation arrangements may include shuttle services to AEL/ bus terminus and Tung Chung MTR Station.
7. Humanitarian assistance :
 - a. PCT may be activated to assist passengers at the Temporary Holding Area.
 - b. Provision of relief items e.g. blankets, food and beverages for the evacuees and working staff at the Temporary Holding Area may be required.
 - c. LD should arrange toilet facilities for the evacuees, with contractors for delivery of portable toilets if required
8. The Joint Liaison Post will manage the operation of the Temporary Holding Area.

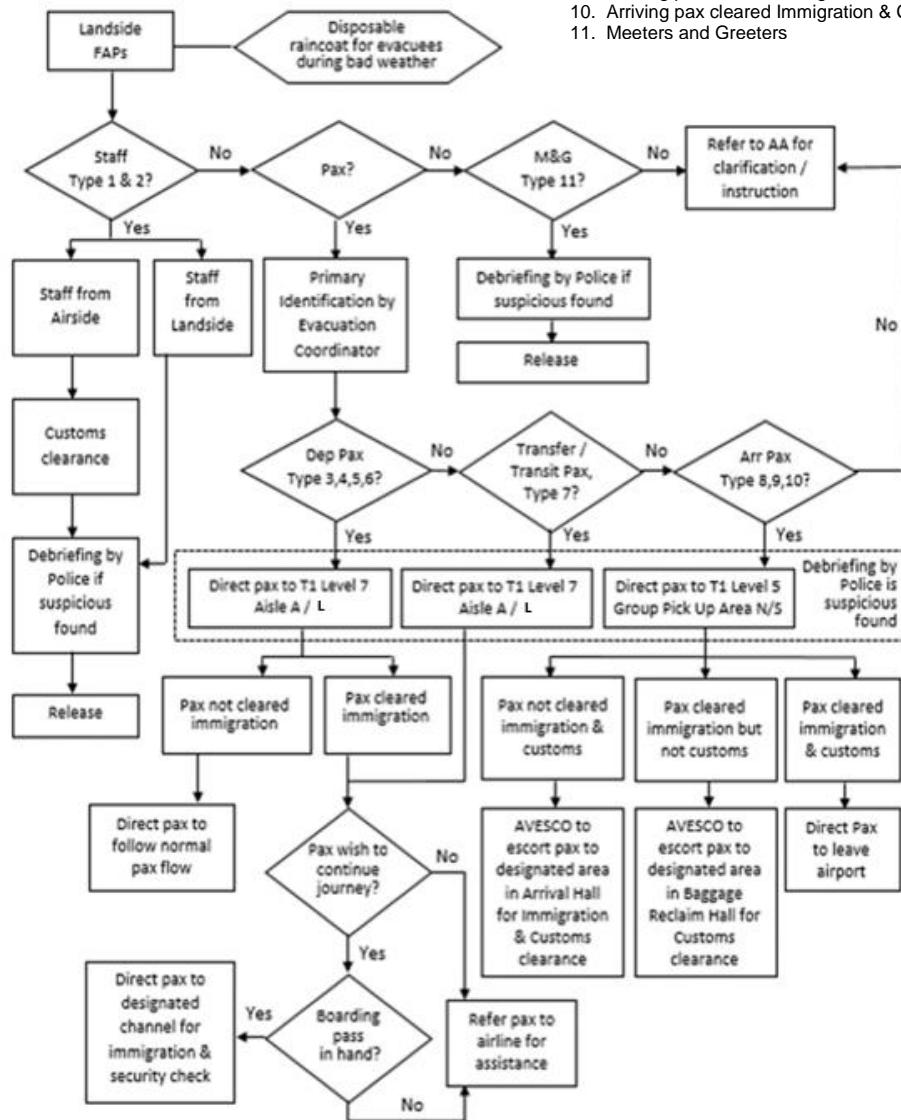
APPENDIX 1. RECOVERY PROCESS AIRSIDE FAPS



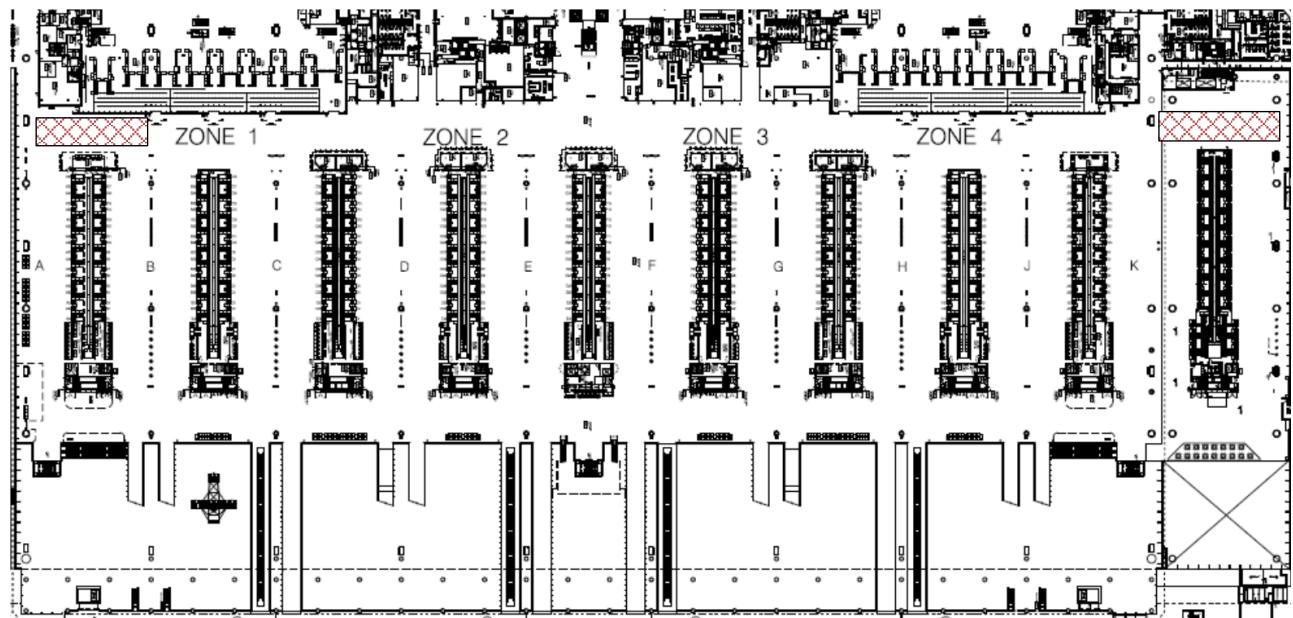
APPENDIX 2. RECOVERY PROCESS LANDSIDE FAPS

Types of Evacuees

1. Staff from landside
2. Staff from airside
3. Departing pax not check-in yet
4. Departing pax checked in but not yet cleared Immigration
5. Departing pax cleared security but not Immigration
6. Departing pax already cleared Security and Immigration
7. Transfer / Transit pax on arrival level
8. Arriving pax not yet cleared Immigration & Customs
9. Arriving pax cleared Immigration but not Customs
10. Arriving pax cleared Immigration & Customs
11. Meeters and Greeters



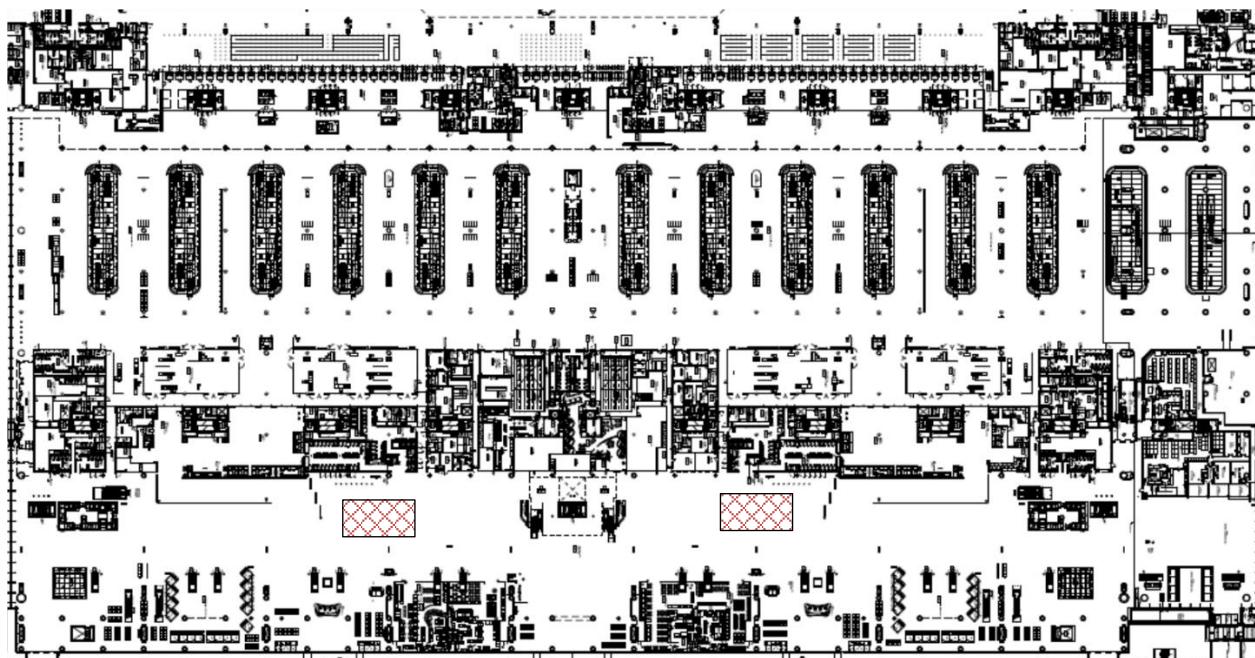
APPENDIX 3. LANDSIDE TEMPORARY HOLDING AREAS-TERMINAL 1 LEVEL 7



Temporary
Holding Area

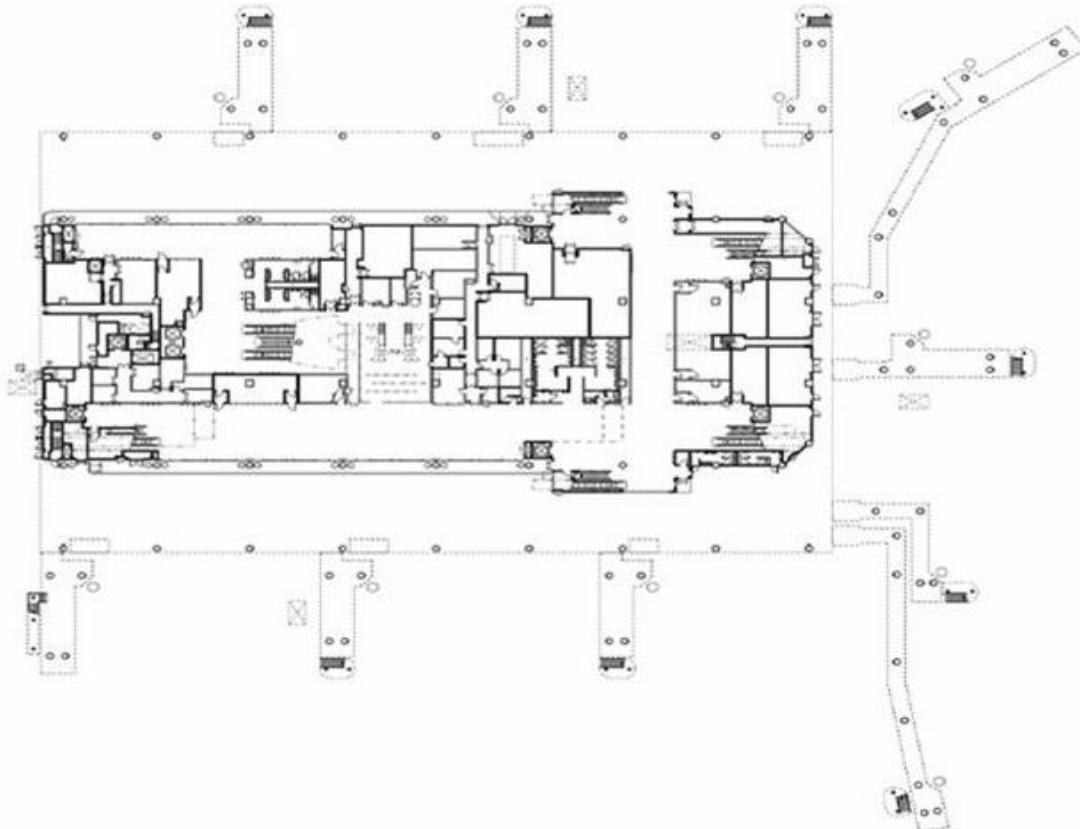
Departure Level

APPENDIX 4. LANDSIDE TEMPORARY HOLDING AREAS-TERMINAL 1 LEVEL 5



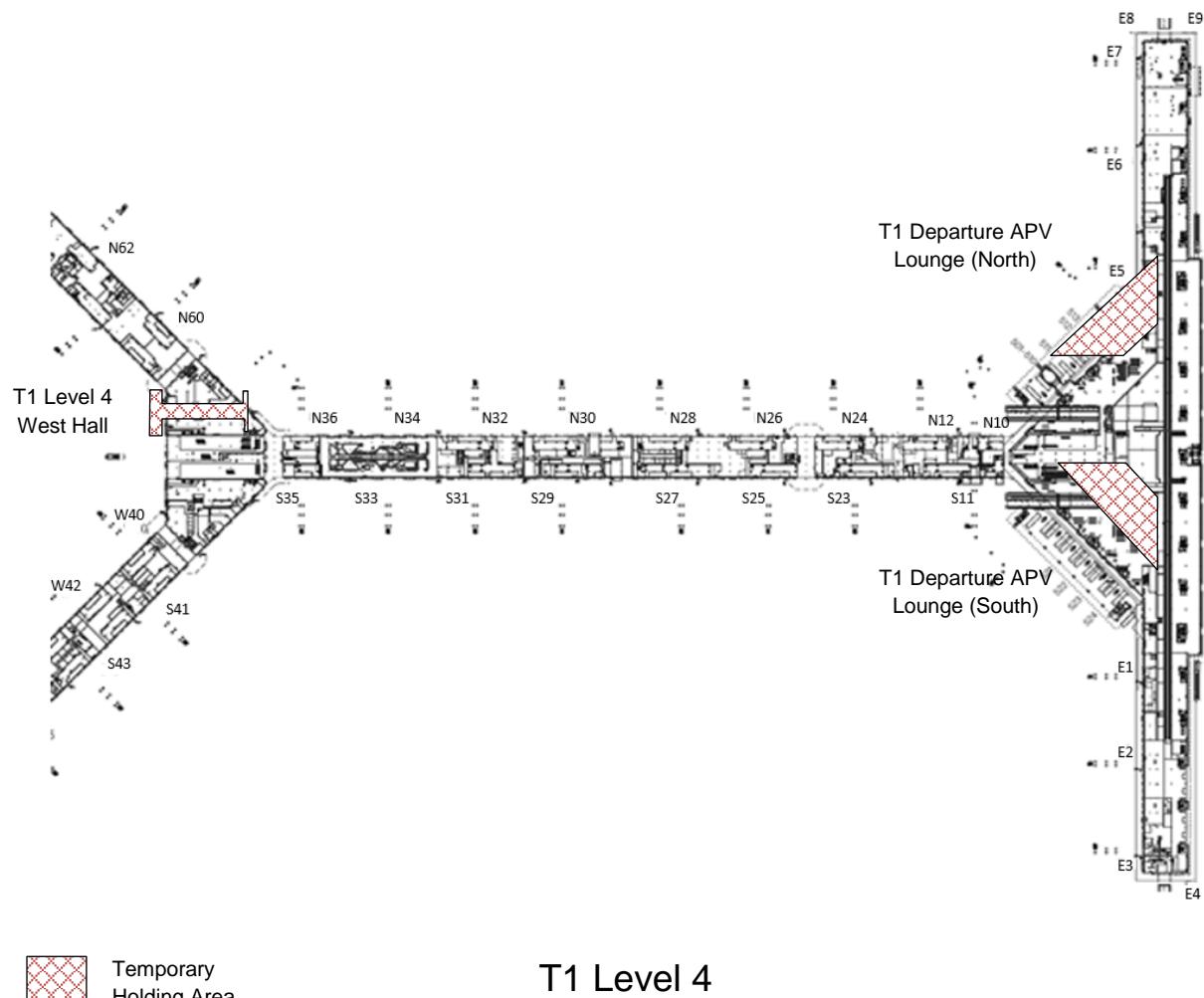
Meeters and Greeters Hall

APPENDIX 5. AIRSIDE TEMPORARY HOLDING AREA – T1 SATELLITE CONCOURSE LEVEL 4

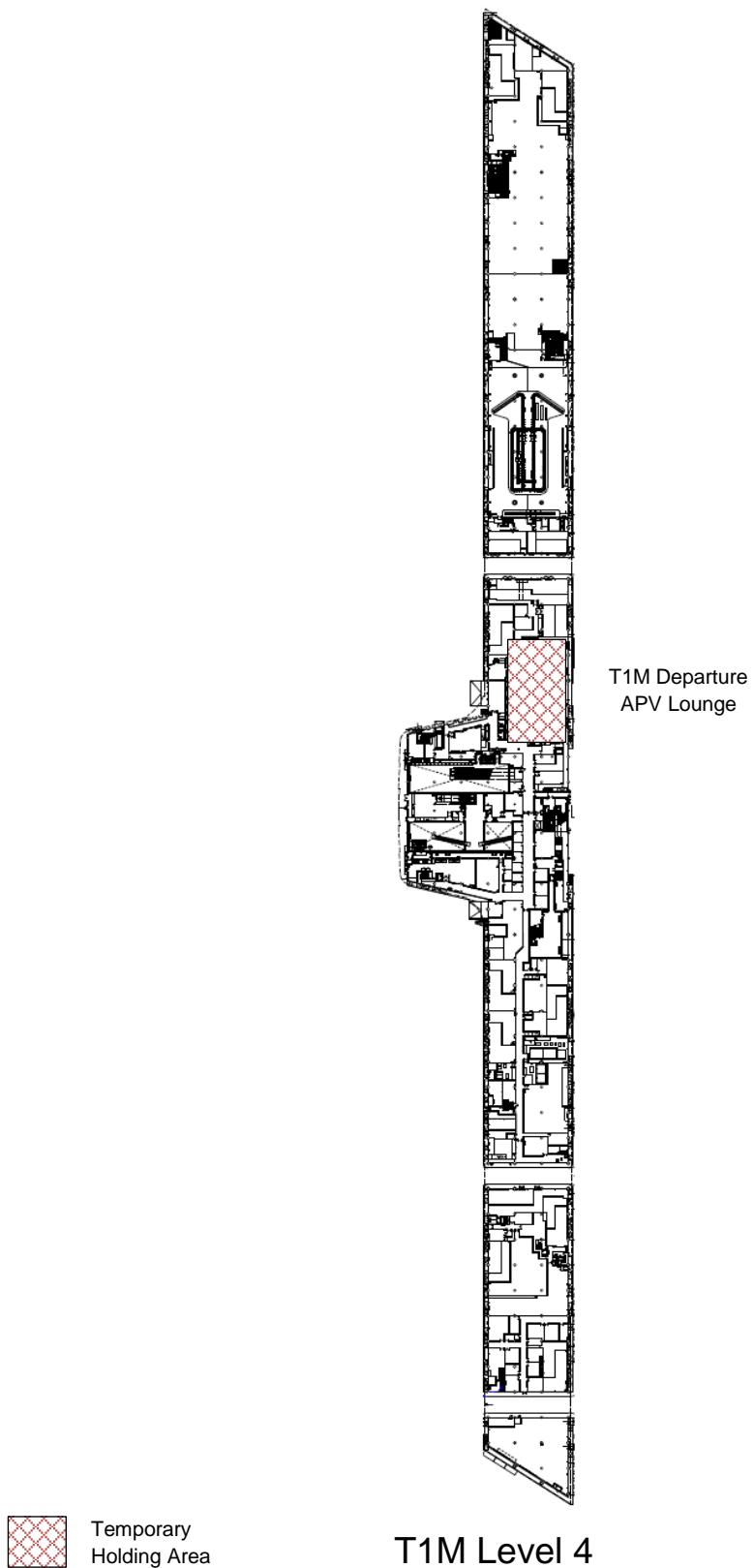


Arrival Level

APPENDIX 6. AIRSIDE TEMPORARY HOLDING AREAS-TERMINAL 1 LEVEL 4



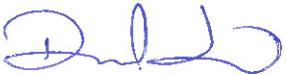
APPENDIX 7. AIRSIDE TEMPORARY HOLDING AREA - T1 MIDFIELD CONCOURSE LEVEL 4



END OF BCP – B5

Business Continuity Manual

Business Continuity Plan: C1 Baggage Handling System

		Signature	Revision	Effective Date
Updated By	Assistant General Manager Baggage Operations ABD	 Annie Yang		
Reviewed By	Assistant General Manager BCP, SSBC	 Emily Chu	34	Nov 2023
Approved By	General Manager SSBC	 David Jea		

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BCP – C1. BHS Table of Contents

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H	Contingency Procedure for Baggage Handling System at T1 Midfield Concourse	C1.29

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A. Airline DCS and CUTE GATEWAY Failure

1.0 Background

1. AA's CUTE GATEWAY is the most important message transmission system interface between Airline DCS and the BHS.
2. Once the BSM is generated by the airline DCS, the BSM that contains passenger data such as, flight number, passenger name, class and baggage tag number will be sent to the BHS via CUTE GATEWAY for baggage sorting inside the BHS and other baggage handling process. This chapter covers the contingency measures for BHS when BSMs are not received e.g. during the failure of AA's CUTE GATEWAY / or Airlines' DCS failure.

2.0 Scope of Impacts

1. During the failure of CUTE GATEWAY or Airlines' DCS, no BSM for all flights or flights of particular airlines will be sent to the BHS sorting system.
2. Both check-in and transfer baggage which enters the BHS after the failure will be diverted to manual coding stations for manual coding before going to NATL carousels.
3. Subsequently, sorters will become congested due to the bottle neck effect of manual coding stations. In addition, the NATL carousel will become overcrowded with NATL baggage.
4. The aforementioned impacts may cease after re-booting the CUTE GATEWAY where BSM can be received again. By experience, the normal baggage flow will resume in 30mins.
5. If the BSM flow cannot resume after re-booting CUTE GATEWAY or the cause is due to Airlines' DCS, fallback tag procedure will be activated. BMO will then switch the related flights to lateral mode to stop sorting baggage to NATL carousel.
6. The system congestion will begin to release after airline staff using fallback tag for check-in baggage. However, the bag flow will not resume fully because most of the transfer baggage (without fallback tag) will be sorted to manual coding station for manual processing. Thus, some overflow baggage will still go to problem late area and overflow carousels due to the overflow of MCS at primary sorter.
7. When the receipt of BSM resumes to normal, Airlines shall stop using fallback tags to check-in baggage after 30mins counting from the resume time. However, if the suspension of BSM is caused by the failure of airlines DCS, it will take time for the clearance of the historical BSM upon the resumption of the airline DCS. For this case, the time for using fallback tags will be extended and the time length will depend on the volume of BSM queued.

3.0 Contingency Measures

3.1 STAGE1: BSM Outage Observed

1. BMO shall:

- a. Confirm no BSM receive for all or particular airlines; and
- b. Inform SOCC, ABRS team for follow up

2. SOCC shall:

- a. Perform health check on CUTE GATEWAY server;
- b. Contact ARINC to check system status;
- c. Reboot CUTE GATEWAY servers; and
- d. Update BMO for the progress and the findings.

3.2 STAGE2: BSM Still Not Receive For All or Particular Airlines After Rebooting of CUTE GATEWAY Servers and confirm the cause is due to Airlines' DCS

1. BMO shall:

- a. Activate fallback tag procedure in Section A 3.3 or 3.4 in accordance with the real time situation;
- b. Configure all affected flights to “Lateral Mode”;
- c. Remind RHO to collect baggage from NATL carousel and switch off all RF readers at lateral/Stack@Ease when performing manual bingo;
- d. Inform AVSECO to perform manual bingo at MS01, MS02, RTF & T1 Midfield Concourse (T1M);
- e. Activate the north and south overflow carousel contingency manual handling area and deploy BHO to assist manual baggage sorting;
- f. Deploy patrol staff to Level 7 check-in islands to monitor the real time situation and inform affected airlines’ supervisors to use fallback tag properly; and
- g. Inform AVSECO to handover bags at NATL carousel to RHO (including ATL and NATL bags). NATL return line will be suspended to deliver bags back to the baggage handling system.

3.3 Fallback Tag Procedure - BSM Disruption for Selective Airlines i.e. DCS Failure (Only particular airline(s) are affected)

1. BMO shall:

- a. Inform Airport Duty Manager, Baggage Duty Manager and IAC-TOD the affected airlines. IAC-TOD inform AOC to disseminate the message to particular airlines and request for using fallback tags;

- b. Inform the corresponding airline handling agents listed in Appendix 3 directly and request to use fallback tags;
- c. Deploy BHO to confirm airline staff at check in counters are using fallback tags as well;
- d. Inform the corresponding airline handling agent when BSM resume normal and request to stop using fallback tags; and
- e. Deploy BHO to inform airline staff at check in counters to stop using fallback tags as well.

2. IAC-TOD shall:

- a. Inform AOC on the incident and the fallback plan arrangement;
- b. Implement fallback tag procedure in Section A 3.3 and
- c. IAC-TOD deploy patrol staff to Level 7 check-in islands to monitor the real time situation and inform affected airlines supervisors to use fallback tags properly.

3. SOCC shall:

- a. Carry out 2nd Level investigation;
- b. Co-ordinate with corresponding Airlines;
- c. Co-ordinate with ARINC to perform troubleshooting;
- d. Perform system health checks or system switch-over;
- e. In case of suspected cyber-attack, SOCC shall inform Risk & Cybersecurity Section of ITD for further investigation; and
- f. Inform BMO of the services status updates.

4. AVSECO shall:

- a. Pass all NATL baggage to RHO for further action.

5. Ramp Handling Operator (RHO) shall:

- a. Switch off all RF readers at Stack@Ease before performing manual bingo for particular airlines;
- b. Conduct manual bingo for particular airlines at laterals;
- c. Collect all bags from NATL and ATL carousels to laterals; and
- d. Deploy manpower to north and south overflow carousel contingency manual handling area to collect overflow baggage.

6. Airlines shall:

- a. Use fallback tag according to fallback tag procedure in Section A 3.3.

- b. Confirm fallback code for each flight.

3.4 Fallback Tag Procedure - Major BSM Disruption i.e. CUTE GATEWAY failure (All airlines are affected)

1. BMO shall:

- a. Inform Airport Duty Manager, Baggage Duty Manager and IAC-TOD the affected airlines. IAC-TOD inform AOC to disseminate the message to all airlines and request for using fallback tags
- b. Inform the corresponding airline handling agents listed in Appendix 3 directly and request to use fallback tags;
- c. Deploy BHO to confirm airline staff at check in counters are using fallback tags as well;
- d. Inform the corresponding airline handling agent when BSM resume normal and request to stop using fallback tags; and
- e. Deploy BHO to inform airline staff at check in counters to stop using fallback tags as well.

2. IAC-TOD shall:

- a. Inform AOC on the incident and the fallback plan arrangement;
- b. Implement fallback tag procedure in Section A 3.4 and
- c. IAC-TOD deploy patrol staff to Level 7 check-in islands to monitor the real time situation and inform all airlines supervisors to use fallback tags properly.

3. SOCC shall:

- a. Carry out 2nd Level investigation;
- b. Co-ordinate with corresponding Airlines;
- c. Co-ordinate with ARINC to perform troubleshooting;
- d. Perform system health checks or system switch-over;
- e. In case of suspected cyber-attack, SOCC shall inform Risk & Cybersecurity Section of ITD for further investigation; and
- f. Inform BMO of the services status updates.

4. AVSECO shall:

- a. Pass all NATL baggage to RHO for further action.
- b. Perform manual bingo at MS01, MS02, RTF & T1 Midfield Concourse (T1M)

5. Ramp Handling Operator (RHO) shall:

- a. Switch off all RF readers at Stack@Ease before performing manual bingo for all flights or particular airlines;
- b. Conduct manual bingo at laterals;
- c. Collect all bags from NATL and ATL carousels to laterals; and
- d. Deploy manpower to north and south overflow carousel contingency manual handling area to collect overflow baggage.

6. Airlines shall:

- a. Use fallback tag according to fallback tag procedure in Section A 3.4.
- b. Confirm fallback code for each flight.

B. SAC Failure Contingency Procedure

1.0 Background

1. When SAC fails and the expected recovery time will be more than an hour, Lite SAC will then be activated to serve as a replacement of SAC. Lite SAC has the same function as SAC, except it is semi-automated and thus in comparison with SAC, the sustainability is comparatively lower.
2. Since both systems share the same network IP, Lite SAC is incapable of always-on standby. To activate the Lite SAC, 10 mins will be required for startup, including shutting down of SAC server, CUTEGATEWAY and SAC LAUs, reloading flight schedule and restoring BSM for all baggage.
3. The sorting function and bag flow will resume normal when Lite SAC is in place.
4. When the SAC recovers, the BHS needs to revert back to SAC from Lite SAC and the process will need approximately 1 hour. The switch back to SAC process will be conducted at non-operating hours, i.e. after the last flight departed, to minimize any impact to the operation.

2.0 Scope of Impacts

1. Before the Lite SAC and related system is ready, local joining baggage shall be delivered via OOG routing while transfer baggage shall be diverted to manual sorting facilities for sortation.
2. The stoppage of sorter is caused when CSC servers together with Lite SAC are updating the baggage sort table, respective sorter will be suspended from operation and all baggage will be diverted to other available sorters to handle.
3. During the course of SAC failure and before the Lite SAC is put into operation, the BSM transmission process will be suspended. After the Lite SAC is put into operation, the recovery of BSM is required.
4. During the activation process of the Lite SAC, the EBS records will be purged. As such, the EBS system needs to be temporarily suspended and those stored early bags will be released from the storage lanes and be reassigned after the Lite SAC is activated.
5. Manual flow control on EBS baggage releasing is necessary to prevent system overflow thus simultaneous release action needs to be prevented.
6. The EBS system will resume normally after all stored baggage is released. However, the completion time for releasing all stored EBS baggage will be subjected to the volume of baggage that were stored in the system before the SAC failure.
7. Normally, the EBS system will not resume in service within 2 hours after SAC failure. All EBS baggage will be sorted to 11A and 41A carousels for manual handling when the EBS system is out of service.

8. To maintain the bag flow at check-in counters during the activation of contingency, service contractors will be arranged to divert the local joining baggage to Baggage Hall through OOG routing. Airlines and their check-in agents need to use fallback tags for all local check-in baggage.
9. However, transfer baggage without a fallback tag would require manual coding, thus causing congestion within the BHS. In view of such, RHO needs to divert part of transfer baggage to RTF, T1M and hot transfer facilities.
10. All baggage flow will resume normal once all BSM retrieval have completed as per stated in Section B 3.0, which system can sort baggage automatically by BSM. At this stage, Airlines and their check-in agents shall stop using fallback tags.

3.0 Contingency Measures

3.1 STAGE1: Contingency Activation of Lite SAC

- 1. BMO shall:**
 - a. Inform Airport Duty Manager, Baggage Duty Manager, IAC-TOD and airlines of contingency activation.
 - b. Inform RHO of contingency and suspend CTF in-feed lines until further notice.
 - c. Inform MTRC of contingency and suspend ITCI in-feed until further notice.
 - d. Inform BHO of contingency and request BHO to gear up manpower.
 - e. Stop all sorters IUs from MICS in order to stopping in-feed to sorters for bags clearing.
 - f. Activate fallback tag procedure in Section A 3.3 & 3.4.
 - g. Activate the north and south overflow carousel contingency manual handling areas and deploy BHO to assist manual baggage sorting.
 - h. Manual input flight-lateral information to CSC for lateral mode (disregard if the situation has already escalated to Stage 2).
 - i. Deploy staff to Level 2 for activation of contingency procedure and bag flow management.
- 2. IAC TOD shall:**
 - a. Inform AOC and airlines of the contingency arrangement.
 - b. Deploy patrol staff to check-in counters.
- 3. Airlines shall:**
 - a. Use fallback tags for all check in bags according to fallback tag procedure in Section A 3.3 & 3.4.
 - b. Confirm fallback code for each flight.

4. SOCC shall:

- a. Startup Lite SAC.
- b. Switch CGW from SAC to Lite-SAC.
- c. In case of suspected cyber-attack, SOCC shall inform Risk & Cybersecurity Section of ITD for further investigation.

5. BHO shall:

- a. Switch off motor of each EBS lane with baggage.
- b. Mobilize manpower at each no-read MCS (prepare for large volume of baggage).

6. RHO shall:

- a. Divert transfer baggage to RTF, T1M and hot transfer facilities.
- b. Deploy manpower to north and south Problem and Late contingency areas for manual baggage sorting and loading.
- c. Deploy manpower to north and south overflow carousel contingency manual handling areas to collect overflow baggage.

3.2 STAGE 2 : Lite SAC (On-Line)

1. SOCC shall:

- a. Reboot CGW.
- b. Reboot all CSCs.

2. BMO shall:

- a. Stop sorters by turn for baggage clearance.
- b. Restore today's flight information to Lite SAC.
- c. Activate flight schedule in Lite SAC.

3. BHO shall:

- a. Manually clear baggage on sorters.

3.3 STAGE 3: Flight Schedule Activated on Lite SAC

1. SOCC shall:

- a. Extract BSM, startup CGW and restore BSM for Lite SAC.

2. BMO shall:

- a. Activate lateral mode through Lite SAC.
- b. Set all flights to "NO EBS" mode or manually assign heavy load flight to lane type EBS
- c. No flight to be assigned into T1A EBS

- d. Resume all sorters IUs.
- e. Redeploy manpower standby at P/L carousel for handling overflow baggage.

3.4 STAGE 4 : Fallback to SAC (after last flight departed)

1. SOCC shall:

- a. Shutdown Lite SAC.
- b. Stop CGW.
- c. Startup normal SAC.
- d. Logout SACLAU.
- e. Reboot all CSC.
- f. Start CGW.
- g. Restore BSM

2. BMO shall:

- a. Disable lateral mode by Lite SAC.
- b. De-activate fallback tag procedure and inform IAC TOD.

3. IAC TOD shall:

- a. Inform AOC to disseminate the information to all airlines to stop using fallback tags.
- b. IAC TID deploy patrol staff to Level 7 check-in islands to monitor the real time situation and inform affected airlines supervisor to use fallback tag properly.

4. Airlines shall:

- a. De-activate fallback tag procedure.

C. MICS Failure Contingency Procedure

1.0 Background

1. When MICS has failed, LMCC can be served for fault identification and fault reset for departure conveyors as MICS does, except for sorters and arrival conveyors.
2. These exception areas need to be reset manually at the MCC panels in case of any stoppage or bag jam.
3. In RTF and T1M, when MICS has failed, manual reset at MCC panels will be required.

2.0 Scope of Impacts

1. When MICS fails, the real time BHS performance and healthiness will not be reflected. In case of bag jams, BMO will not be able to receive the system alert for conveyor belts failure, sorters stoppage, ICS stoppage and e-stop activation.
2. Monitoring of sorters and Automation Arrival Baggage Delivery (AABD) shall be done via SCADA (Primary sorters), CSC (Secondary sorters) and BBIT (AABD) by manning 6x SCADA, 8x CSC servers, 2x BBIT and resetting the servers. E-stop activation shall be monitored and reset via respective E-Stop center.
3. Apart from the LMCC in BMO, all SCADA servers, CSC servers, BBIT and E-stop centers require extra manpower deployment. Counting from the MICS confirmed downtime; at least 20mins will be needed to complete the manpower deployment on manual reset of SCADA, CSC servers, BBIT and E-stop panels by ITD and TSS respectively. Part of the BHS may stop up to 20mins before the manpower deployment is completed.
4. With the respective manpower positioned at the dedicated panel to conduct the manual reset function, degraded performance of the BHS will be expected.
5. The whole arrival system has to be monitored and reset on the spot by BHO.
6. If any E-stop activation occurs during this stage, the whole sub-zone will be by-passed at the E-stop MCC panels. Thus, part of the BHS may not be operated with E-stop provisions.

3.0 Contingency Measures

3.1 STAGE 1 : LMCC activation

1. BMO shall:

- a. Inform Airport Duty Manager, Baggage Duty Manager, IAC TOD, RHOs, BHOs, and TSS for contingency.

- b. Monitor and reset fault at primary sorters via SCADA, secondary sorters via BG Fusion, conveyor faults via LMCC and AABD faults via BBIT.
- c. Deploy staff to Level 2 for activation of system overflow contingency procedure in accordance with Appendix 1.

2. IAC TOD shall:

- a. Inform AOC regarding the system fault and contingency arrangement.
- b. Deploy patrol staff to check-in counter for bag flow management.

3. SOCC shall:

- a. Try to recover MICS by restarting MICS servers in the following sequence, (A+C+E+G and B+D+F+H). If fail, inform BMO and go to next step.
- b. Monitor status of Leonardo servers and CSC servers.
- c. In case of suspected cyber-attack, SOCC shall inform Risk & Cybersecurity Section of ITD for further investigation.

4. TSS shall:

- a. Mobilize the onsite maintenance contractor to E-stop centers, to monitor E-stop activation signal at E-stop MCC panel.
- b. Report BMO for any E-stop activation, and bypass the E-stop sub-zones as instructed by BMO.
- c. Report BMO for any activated E-stop sub-zones is cleared; remove the bypass as instructed by BMO.
- d. Monitor and reset at primary sorters local SOPs when SCADA fails.

5. BHO shall:

- a. Deploy manpower to manually move baggage between check-in aisles at Level 7 and deliver normal size baggage via 4 OOG lifts if necessary to relieve the backlog baggage.
- b. Deploy manpower to perform fault monitoring and reset for arrival conveyors.
- c. Set up problem and late area.
- d. Deploy manpower to manually move baggage between delivery lines at Level 6.
- e. Deploy manpower to stand by at inductions for quicker fault handling response.
- f. Use tubs properly at AABD unloading docks and CTF infeed lines.

6. RHO shall:

- a. Deploy manpower at north and south contingency exit areas.
- b. Deploy manpower at problem & late areas and problem carousels.
- c. Use tubs properly at CTF infeed lines.
- d. Ensure loading laterals are not full.

3.2 STAGE 2 : Fallback to MICS

1. BMO shall:

- a. Perform MICS functional tests.
- b. Inform Airport Duty Manager, Baggage Duty Manager, IAC TOD, RHOs and BHOs system to resume normally.
- c. Deactivate LMCC, SCADA, BG Fusion and BBIT monitoring..
- d. Inform TSS to revert by-passed E-stop to normal mode.

2. IAC TOD shall:

- a. Inform AOC BHS resume normal.

3. TSS shall:

- a. Remove all by-passed E-stop and inform BMO.
- b. Check any fault and abnormality on E-stop centers.

4. SOCC shall:

- a. Startup MICS servers in the following sequence (A+C+E and B+D+F).
- b. Conduct system health check on MICS servers and restart MICS workstations.
- c. Perform MICS functional tests.

D. Typhoon Contingency Handling

1.0 Background

1. Arriving or departing flight movements may be affected by Typhoon or aftermath. In cases where no flight is arriving to Hong Kong, check-in services may be suspended. Thus, transfer baggage will also be affected.
2. Upon the recovery of arrival and departure flight movements, baggage load will upsurge in a short period. In order to maintain the baggage flow, baggage for major affected ports or regions will be sorted by destination, rather than by flight.

2.0 Scope of Impacts

1. During the course of Typhoons, numerous prolonged-delay flights carrying large volumes of too late baggage will arrive at HKIA. For such baggage, their original connecting flights information will overdue in the BHS sorting system. As such, excessive transfer baggage with no valid BSM will congest the BHS seriously. MCSs, Problem areas and NATL carousels will face baggage congestion problems.
2. Subsequently, system capacity will sharply reduce, which will in turn affect the check-in process. In this respect, contingency measures aim to enable auto sorting of too late transfer baggage in order to reduce the loading of MCS.
3. Another aim is to divert too late transfer baggage to designated laterals for sorting by designation or carriers, so as to reduce the loading of problem areas and NATL carousels. However, in doing so, shortage of laterals for real time operation is expected.
4. In addition to baggage handling, contingency mode for FIDS displays for both arrival flights will be activated to accommodate more flight information on the FIDS displays.

3.0 Contingency Measures

3.1 STAGE 1: Yellow Stage – Arrival

If a Typhoon affects real time flight operations, AA will activate contingency plans as follows:

1. SOCC shall:

- a. Change the infotainment setting to display extra arrival flight information (up to 10 flights) at each reclaim carousel.
- b. Switch BO3 to display 38 rows screen format to display more arrival flights at customs hall.

2. IAC TOD shall:

- a. Set up 4 projectors with screen (movable roll boy) at L5 baggage reclaim hall at reclaim belt 5/6, 8/9, 13/14 and 16/17 for additional arrival flights.

3. BHO shall:

- a. Deploy sufficient manpower at L5 baggage reclaim hall for arrival OOG baggage delivery and collect empty tubs from carousels.

3.2 STAGE 2: Yellow Stage – Departure

1. BMO shall:

- a. Laterals will be assigned according to FRCS arrangement. RHO shall liaise with BMO for the plan.
- b. Co-ordinate with RHOs to spare out laterals for overnight misconnected baggage for major carriers i.e. CX, HX, CNAC, and CI. Designated flights will be set to lateral mode in the baggage handling system.
- c. Release NATL carousal 31A for other carriers' overnight misconnected baggage and all NATL baggage will be diverted to 61A and inform SSBC, RHOs and AVSECO.
- d. Report lateral full messages to RHOs once MICS displays lateral full message.
- e. Request AVSECO ABRS and MAEDS team to operate additional facilities such as, MS01 and MS02, RTF, T1M and CTX if applicable.
- f. Create fallback list for MCS staff to manually sort the misconnected bags to laterals so as to allow more efficiency.
- g. Activate contingency plan at the contingency manual handling area in accordance with Appendix 1.
- h. Inform AVSECO ABRS team that system is changed to RF Degrade mode (if applicable).
- i. Make emergency call to maintenance contractors to prepare sufficient manpower during the course of the Typhoon.

2. IAC TOD shall:

- a. Inform AOC that the yellow stage typhoon contingency is activated.
- b. Remind TSS and cleaning contractor to ensure that all ditches at basement are unobstructed. All construction works need to be temporarily suspended until further notice.
- c. Generate updated delay flights information and request airlines to add suffix "D" for delayed flights. Regular update of flight information status needs to be communicated with BMO.
- d. Inform SOCC to change infotainment setting to display flight information, switch BO3 to display 38 rows screen format and update typhoon information at all laterals in L2 baggage hall.

3. Airlines shall:

- a. Provide regular updated flight information to BMO and confirming the BSM date of delayed overnight flights.

- b. Deploy representatives to monitor their misconnected baggage at the baggage hall.

4. BHO shall:

- a. Provide sufficient manpower to handle the baggage of the reactivated flights.
- b. Deploy staff to cordon off the road between 11A and 31A, 41A and 61A as the temporary baggage staging areas and deploy staff to 31A to 41A for system overflow handling in accordance with Appendix 1.
- c. Deploy sufficient manpower to activate north and south problem areas.

5. RHO shall:

- a. Provide sufficient containers and manpower for baggage handling.
- b. Avoid laterals becoming full so as to reduce baggage being sorted to problem carousels.
- c. Deploy representatives to coordinate with AA representatives at BMO.
- d. Coordinate with BMO to assign designated laterals for misconnected baggage.
- e. Conduct manual bingo or use Hand Held Terminal (HHT) during baggage loading into ULD if the selected departure flight setting is changed to lateral mode.
- f. Deploy manpower to collect system overflow, mis-connected baggage from 11A and 41A in accordance with Appendix 1.
- g. Deploy representatives to major area such as P/L area, ATL and NATL carousels to clear baggage being sorted to the aforesaid areas. Make sure that there are sufficient places for sorting misconnected baggage.
- h. Ensure wet bags are put into plastic tubs before feed in from CTF area and feed bags with reasonable window between bags, so as to reduce system stoppages.
- i. Fully make use of the provided additional facilities e.g. MS01, MS02, RTF and T1M.

6. TSS's Maintenance Contractor shall:

- a. Deploy standby staff at L3 baggage handling system for operation support.
- b. Deploy representatives to BMO for coordination.

7. SSBC / AVSECO shall:

- a. Re-deploy manpower to operate additional screening facilities i.e. MS01 and MS02.
- b. Deploy additional manpower to man the 5th CTX X-ray machine.
- c. Deploy extra BRD staff to planeside for manifest work.

8. TSI (FRT) shall:

- a. Ensure all ditches at basement are unobstructed and remind all contractors that their construction works in baggage hall areas need to be temporarily suspended until further notice.

9. TSS (Baggage Handling System) shall:

- a. Deploy representatives to BMO for coordination.

10. SOCC shall:

- a. Display footer message at L2 laterals updating typhoon information.

3.3 STAGE 3: RED STAGE

AA will activate this contingency plan, when the BHS is still congested after the implementation of all contingency measures in yellow stage.

1. AA shall:

- a. Stop all transit baggage in feeds.
- b. Stop all AEL baggage in feeds.
- c. Arrange RHO to divert transit baggage to MS01, MS02, RTF and T1M if applicable.
- d. Set up staging areas at North (for JATS and SATS) and South (for HAS) down ramp.
- e. Ensure RHO is responsible for manually sorting transit baggage at their staging areas and perform security screening at MS01, MS02 and contingency chutes.
- f. Reserve ITCI de-stuffing hall for overflow areas of north and south staging areas.

E. Contingency Procedure for Automated Arrival Baggage Delivery (AABD) System

1.0 Background

1. The AABD system is installed at North DCV tunnel for arrival/ transfer baggage delivery from T1M and RTF, and it links with the Baggage Handling System at T1. The length of the NDCV Tunnel between T1 Baggage Hall and T1M Baggage Hall is approximately 2,170m.
2. In normal operation, arrival/ transfer baggage will be transported toward T1 from RTF & T1M using a high-speed Individual Cart System (“ICS”) housed mainly within the BHS Tunnel. Any oversized baggage will be transported by manual tractor or AET at apron level.
3. Total 4x unloading docks are located at T1M and 3x unloading docks located at RTF for baggage infeed. The exit area at T1 of AABD is conveniently connected to arrival reclaim belts 6, 7, 15, 16, or central transfer system at T1 Baggage Handling System (BHS).

2.0 Scope of Impacts

1. The failure of AABD could be caused by different scenarios, such as equipment faults, power failure, fire incident or conveyors breakdown. The arrival/ transfer baggage flow between T1M and T1 will be affected as a result.
2. Alternative facilities are to be used for facilitating the contingency situation.

3.0 Contingency Measure

Expected prolong suspension of AABD operations

1. BMO shall:

- a. Inform TSI/TSS to attend the fault.
- b. Inform TOD and AOC representative at IAC of expected delay of arrival / transfer bags that stranded in the system (with flight no. and tag no. if available).
- c. Trigger contingency delivery arrangement. Liaise with RHO for delivery using manual tractor and using AET to support delivery of arrival / transfer bags.
- d. Inform Airport Duty Manager and Baggage Duty Manager.
- e. Timely update TOD and AOC representative the expected resumption time.
- f. Coordinate onsite with related parties for the contingency arrangements.

2. AOC representative shall:

- a. Inform the affected airlines for potential delay in delivery of arrival / transfer bags and to take care of passengers as and when needed.

3. TOD (IAC) shall:

- b. Make PA in Baggage Reclaim Hall in case the AABD cannot be resumed in 20 mins
- c. Arrange provision of water and food to affected pax if needed

4. RHOs shall:

- a. Use manual tractor to deliver arrival bags from T1M to T1 directly and hand over to AA baggage service contractor to unload onto relevant reclaim belt or transfer infeed during the initial 30 mins of the contingency period
- b. Tow arrival bags to AABD queuing point at Midfield Baggage Handling Area (MBHA) for subsequent delivery by AET

5. WFS (AET) shall:

- a. Arrange AET transportation from T1M to T1 for baggage delivery

F. Contingency Procedure for Baggage Handling System at SkyPier Terminal

1.0 Background

1. SkyPier Terminal at Hong Kong International Airport (HKIA) is owned and managed by Airport Authority Hong Kong (AAHK). The facility provides Sea-to-Air (STA) and Air-to-Sea (ATS), Bridge-to-Air (BTA) and Air-to-Bridge (ATB) transfer connection between ports around the Pearl River Delta and HKIA. The overall management of the facility and the operations is under Landside Department (LD) of AAHK.
2. The detailed end to end operation of the STA and ATS, BTA and ATB baggage is covered in the Terminal and Landside Procedures Manual (TLPN/086). For Baggage Handling System at SkyPier Terminal and baggage transportation between SkyPier Terminal and Terminal 1 Baggage Hall, it is managed by APM and Baggage Department (ABD).

2.0 SkyPier Terminal Baggage Handling System consists of the following equipment:

1. Transport Conveyor
2. Queue Conveyor
3. Crossover Unit
4. Vertical Sort/Merge Unit (VSU/VMU)
5. Dual Merge Unit
6. Weighing Scale Conveyor
7. Labelling Conveyor
8. Induction Conveyor
9. Tipping Device
10. Tub Return Conveyor
11. Reclaim Carousel
12. Gravity Roller Conveyor
13. Curve Conveyor
14. Merge Conveyor
15. Continuous Vertical Conveyor (CVC)
16. Fire/Security Shutter

3.0 Scope of Impacts

3. The failure of BHS could be caused by different scenarios, such as equipment faults, prolong fault restore, power failure, fire incident or conveyors breakdown. The baggage flow between SkyPier Terminal and Terminal 1 will be affected as a result.
4. Alternative facilities are to be used for facilitating the contingency situation.

4.0 Contingency Measures

4.1 All non-tag through STA and BTA & tag through BTA bag flow blockage

1. BMO shall:

- g. Inform TSI/TSS to attend the fault.
- h. Inform Airport Duty Manager, Baggage Duty Manager
- i. Inform LD contingency arrangement will be activated.
- j. Inform FHA, BHA and ABD contractor to use lift for baggage delivery from Level 3/ Level 5 to Baggage Hall.
- k. Coordinate onsite with related parties for the contingency arrangements.

2. FHA and BHA shall:

- a. Collect and clear stranded bags on the check-in counter conveyor belt.
- b. Deliver the checked-in bags to lift and send down to Baggage hall.

3. ABD contractor shall:

- a. Clear stranded bags in the system.
- b. Follow BMO's instruction for fault reset.
- c. Collect checked-in bags from lift.
- d. Deliver the bags to make-up area and load onto containers.
- e. Send the containers to T1 Baggage Hall.

4. TSS shall:

- a. Conduct technical inspection to diagnose the problem.
- b. Conduct repairing to resume the system in operation.

4.2 All ATB bag flow blockage

1. **BMO shall:**

- a. Inform TSI/TSS to attend the fault.
- b. Inform Airport Duty Manager, Baggage Duty Manager
- c. Inform LD contingency arrangement will be activated.
- d. Inform BHA and ABD contractor to use lift for baggage delivery from Baggage Hall to Level 4.
- e. Onsite coordination with related parties for the contingency arrangements.

2. **BHA shall:**

- a. Collect checked-in bags from lift at Level 4.
- b. Deliver the bags to carousel for passenger reclaim.

3. **ABD contractor shall:**

- a. Clear stranded bags in the system.
- b. Follow BMO's instruction for fault reset.
- c. Deliver the check-in bags to lift and send to Level 4.

4. **TSS shall:**

- a. Conduct technical inspection to diagnose the problem.
- b. Conduct repairing to resume the system in operation.

G. Check-In Hall Baggage Overflow Contingency Handling

1.0 Background

1. The intermittent stoppage of baggage conveyors at Check-in is normally attributed to the bag jam / E-stop inside the BHS or the stoppage of sorter(s).
2. This will subsequently cause die back from in system to baggage in feed area e.g. check-in counters.
3. The major causes of bag jams are due to lots of reasons but the improper positioning of baggage at infeed points by check-in agents or operators is one of the key factors.
4. By observation, it has been noted that whenever the conveyors are reactivated during the intermittent stoppage, the check-in agents would ignore the baggage positioning guidelines by lumping the checked bags on to the conveyors without reasonable windows between bags to ease the baggage condition at L7.
5. Such malpractice would cause more bag jam incidents and further worsen the BHS condition.
6. Prolonged activation of E-stop that failed to be reset would subsequently cause stoppage on all baggage collector lines for both north and south check in halls.
7. Approximately 15mins will be required for the technical contractor to rectify the problem.

2.0 Scope of Impacts

1. Prolonged intermittent stoppage of conveyor belts will result in check in baggage being piled up at check-in counters, which might cause baggage delays.
2. The contingency handling procedure needs to rely on on-site situations including the location of the affected conveyor(s), the impact on Airlines baggage check-in process etc.
3. Different situations will need to react with different contingency handling processes e.g. the stoppage on one collector line or on the collectors of the same isle etc.

3.0 Contingency Measures

1. In case any of the collector lines is found congested, check-in baggage shall be moved manually to the opposite collecting lines from the congested collecting lines.
2. Extra manpower shall be deployed at collecting lines for baggage repositioning to ensure enough space is allowed between each piece of baggage.

3. In case both collector lines on the same aisle are congested, i.e. major sorter stoppage or E-stop activation, extra manpower shall be deployed at the check in counters to collect check-in baggage with tight connecting time i.e. less than 1 hour, and deliver them through OOG lifts at T1 Level 7 to the baggage hall.
4. BMO shall re-assign baggage routing to other serviceable sorters and the maintenance contractor shall bypass the E-stop zone or switch the defective E-stop center to back up center.
5. **BMO shall:**
 - a. Liaise with maintenance contractor to conduct repair work with minimum impact to the implementation of contingency measures.
 - b. For stoppage caused by E-stop without exact location being indicated in MICS, BMO shall inform the maintenance contractor to by-pass the related E-stop zone or switch the defective E-stop center to back up center.
 - c. Alert Airport Duty Manager, Baggage Duty Manager and IAC TOD AM for corresponding action.
 - d. Inform AVSECO on the activation of contingency arrangements.
 - e. If the scenario is not caused by the activation of E-stop center, the MICS operator shall re-assign baggage routing; and reduce maximum circulation of sorters to keep the bag flow at check in counters. Activate emergency chute at L2 if necessary to relieve the congestion inside BHS.
 - f. Deploy one BMO staff to T1 Level 7 for bag flow monitoring.
 - g. BMO on-site staff shall coordinate with IAC TOD and on-site staff on the implementation of contingency arrangements.
 - h. BMO on-site staff shall coordinate with BHO on-site staff on the implementation of contingency arrangements.
6. **IAC – TOD shall:**
 - a. Alert AOC of the contingency arrangements.
 - b. Deploy IAC TOD staff to T1 Level 7.
 - c. Request for additional manpower via MSCC.
 - d. IAC TOD on-site staff shall coordinate with BMO on-site staff on the implementation of contingency arrangements.
 - e. IAC TOD on-site staff shall coordinate with contractor's on- site staff on the implementation of contingency arrangements.
7. **BHO shall:**
 - a. Redeploy manpower to T1 Level 7 for baggage repositioning at collector lines or deliver check in baggage to baggage hall through OOG lifts under the instruction of BMO.
 - b. Ensure the efficiency of tub circulation at T1 Level 7.

- c. Redeploy manpower to T1 Level 6 for manually re-diverting baggage between delivery lines.

8. Airlines / Handling Agents shall:

- a. Cooperate with IAC TOD / BMO on the contingency arrangements for check-in baggage.
- b. Shall not manually infeed check-in baggage into collector lines when the collector line is stopped.
- c. Maintain proper positioning of check-in bags with enough spacing between each bag.

9. AVSECO shall:

- a. Cooperate with BMO on the contingency arrangements for check-in baggage.

10. TSS's Maintenance Contractor shall:

- a. In case the E-stop cannot be reset, the maintenance contractor shall bypass the related E-stop zone or switch the defective E-stop center to back up center in 10mins.

H. Contingency Procedure for Baggage Handling System at T1 Midfield Concourse

1.0 Background

1. T1 Midfield Concourse (T1M) is a passenger concourse building at the west passenger apron of the Airport.
2. The baggage handling system at T1M is an additional facility provided for RHO to handle intra terminal transfer baggage (arrival and departure at T1M).

2.0 Baggage Processing Facilities

1. 2 baggage docks for offloading bags (MT01 & MT02).
2. 2 automatic in-line Level 1 & Level 2 X-ray screening lines.
3. 1 automatic Level 3 X-ray screening line.
4. 1 stand-alone security X-ray screening line (MT03).
5. 1 stand-alone C&ED X-ray screening line.
6. 1 departure baggage make up loop comprised of belt conveyors.

3.0 Scope of Impacts

1. The failure of BHS could be caused by different scenarios, such as power failure, fire incident or conveyors breakdown. The transfer baggage flow will be affected.
2. Alternative transfer facilities to be used for facilitating the contingency situation.

4.0 Contingency Measures

Scenario 1: Make up loop breakdown

1. BMO shall:

- a. Inform TSI/TSS to attend the fault.
- b. Inform RHO to use the stand-alone security X-ray screening line (MT03).
- c. Inform AVSECO on the activation of contingency arrangements.
- d. Inform BHO to activate contingency arrangements.
- e. Onsite coordination with RHO for the contingency arrangements.

2. BHO shall:

- a. Clear stranded bags in the system.
- b. Follow BMO's instruction for fault reset.

3. TSS shall:

- a. Conduct technical inspection to diagnose the problem.
- b. Conduct repairing to resume the operation.

Scenario 2: BHS total breakdown

1. BMO shall:

- a. Inform TSI/TSS to conduct inspection.
- b. Inform Airport Duty Manager, Baggage Duty Manager and IAC/ TOD.
- c. Inform RHO to use other transfer facilities RTF, CTF and MS of T1.
- d. Inform AVSECO on the activation of contingency arrangements.
- e. Inform BHO to activate contingency arrangements.
- f. Onsite coordinate with RHO for the contingency arrangements.

2. BHO shall:

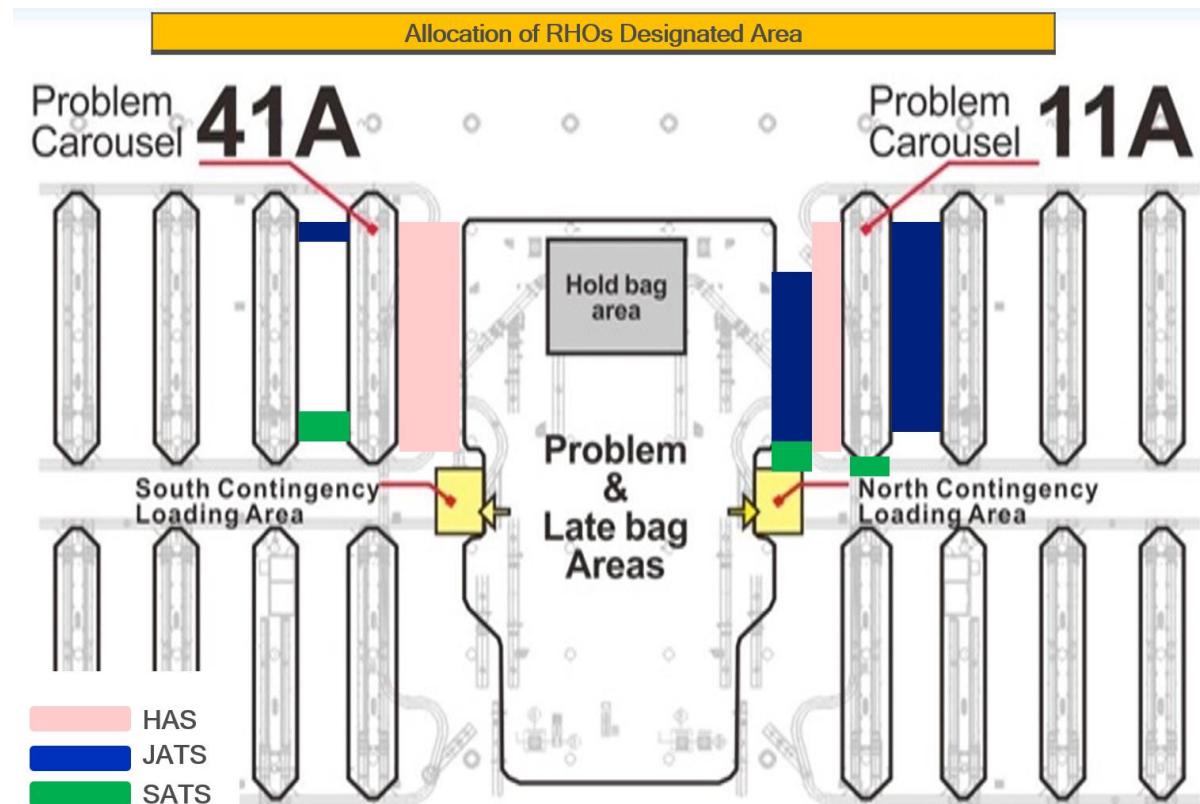
- a. Clear stranded bags in the system.
- b. Follow BMO's instruction for fault reset.

3. TSS shall:

- a. Conduct technical inspection to diagnose the problem.
- b. Conduct repairing to resume the operation.

Appendix 1

Contingency Manual Handling Area at Problem & Late Bag Areas, North & South Problem Carousel (11A and 41A)



Appendix 2

Abbreviations

AA	Airport Authority
ABRS	Automatic Baggage Reconciliation System
ABD	APM & Baggage Department
AET	Autonomous Electric Tractor
AOC	Airport Operator Committee
ATB	Air-to-Bridge
ATL	Authorization To Load
ATS	Air-to-Sea
AVSECO	Aviation Security Company Limited
BBIT	Baggage Based IT
BHS	Baggage Handling System
BHO	Baggage Handling Operator
BMO	Baggage Management Office
BRA	Baggage Reclaim Assistant
BRD	Baggage Reconciliation Division
BSM	Baggage Source Message
BTA	Bridge-to-Air
C&ED	Customs and Excise Department
CGW	Cute Gateway
CSC	Crisplant System Controller
CTF	Central Transfer Facility
CUTE	Common User Terminal Equipment
CVC	Continuous Verticle Conveyor
DCS	Departure Control System
EBS	Early Baggage Storage
FMIC	Flight Movement Information Centre
GTC	Ground Transportation Centre
HHT	Handheld Terminal
ITCI	In-Town Check-in
IU	Induction Unit
LD	Landside Department
LMCC	Localized Motor Control Centre
NATL	No Authorization To Load

MCS	Manual Coding Station
MICS	Management Information and Control System
OS	Operating System
OOG	Out Of Gauge
P/L	Problem / Late
PM	Planned Maintenance
RHO	Ramp Handling Operator
RTF	Remote Transfer Facility
SAC	Sort Allocation Computer
SACLAU	Sort Allocation Computer System Lateral Allocation User-interface
SCADA	Supervisor Control And Data Acquisition System
SSBC	Safety, Security and Business Continuity
STA	Sea-to-Air
T1	Terminal 1
T1M	T1 Midfield Concourse
TOD	Terminal Operations Department
TSI	Technical Services Infrastructure Department
TSS	Technical Services Systems Department
VSU	Vertical Sort Unit
VMU	Vertical Merge Unit

Appendix 3

Contacts of Concerned Parties

IAC-TOD	2181 8110 / 9388 1340
IAC-LD	2181 8118 / 9150 3037
TOD – ARRIVAL	2182 2064
TOD – DEPARTURE	2182 2065
TOD – OIC	2183 3351
BMO	2182 5769
CI Baggage Services	2769 7738
CX Station Control	2747 7688
HAS	2928 0233
JASL Flight Control	2216 1221 / 2216 1400
JATS	2216 1799
JL Operation Centre	27697506
KE Baggage Services	2769 7511
SATS	2116 8736
MTRC	2261 1489
SOCC	2182 0030
TSI	2183 6888
TSS	9668 3152
UA Flight Control	2122 8197 / 2122 8198

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Business Continuity Manual

Business Continuity Plan: C2 Cargo Operations Disruption Contingency Plan

		Signature	Revision	Effective Date
Updated By	Assistant General Manager ALD	Irene Lau		
Reviewed By	Assistant General Manager BCP, SSBC	Emily Chu	34	Nov 2023
Approved By	General Manager SSBC	David Jea		

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BCP – C2. Cargo Operations Disruption Contingency Plan

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A. Introduction

To ensure that the impacts on air cargo community of Hong Kong including airlines, all-cargo carriers, express integrators, shippers, freight forwarders, truckers and relevant Government agencies due to service disruption is kept to the minimum, it is of paramount importance to ensure the contingency preparedness of air cargo operations at HKIA in managing operational disruptions resulted from incident(s) occurred at or outside HKIA.

Cargo flow disruption will be more effectively managed through collaborated actions of all concerned stakeholders, hence, the HKIA AEC-Cargo Group (Group) will be activated as required for facilitation and coordination of air cargo related contingency measures to mitigate operational impacts and ensure timely recovery of air cargo operations at HKIA.

This procedure outlines the roles and functions of the Group and the relevant contingency measures that will be initiated in the event of cargo operations disruption occurring at HKIA.

B. HKIA AEC - Cargo Group (Group)

The primary objectives of the Group is to act as a forum for effective communications and coordination among stakeholders including Airport Authority (AA), Carrier Liaison Group (CLG), Cargo Terminal Operators (CTOs) and Ramp Handling Operators (RHOs), in the event of incident(s) that has caused or is likely to cause major impacts on the cargo operations of HKIA.

Subject to real time situation and operational needs, the Group is normally convened at the AEC located in the IAC.

2.1 Primary functions of the Group includes

- 2.1.1 To ensure decisions on contingency measures and implementation of plans to address major cargo operation issues or disruption is made expeditiously;
- 2.1.2 To closely monitor implementation of contingency response plans of Group and CTOs' CRCs (Cargo Contingency Response Centers) to ensure timely and effective mitigation of impacts on air cargo and overall operations of HKIA;

- 2.1.3 To support on necessary pooling of apron resources to mitigate impacts on air cargo and overall operations at HKIA; and finally
- 2.1.4 To ensure expeditious recovery of cargo operations at HKIA.

2.2 The AEC – Cargo Group Members

- 2.2.1 The followings are standing members of the Group. Each organisation is required to send a representative who is obliged to represent, make and endorse decisions on behalf of its organisation at the Group:
 - Airport Duty Manager (ADM);
 - Aviation Logistics Department (ALD);
 - Carrier Representative/Carrier Liaison Group (CLG);
 - Cargo Terminal Operators and Express Cargo Terminal Operators (CTO/ECT); and
 - Ramp Handling Operators (RHO).
- 2.2.2 For incident(s) with major operational impacts on other stakeholders eg. HAFFA (Hong Kong Association of Freight Forwarding Agents), or when support and coordination by Government agencies/ business partner(s) is required, further enhancement of membership shall be considered by the Group.
- 2.2.3 Individual CTO and ECT (Express Cargo Terminal) representative who reported to the Group is required to establish direct communication between their CRC/Crisis Management Centre and the AEC to facilitate real time reporting of the latest situations and status in the implementation of any contingency plans or measures initiated at their respective cargo facilities and operations to the AEC-Cargo Group.

2.3 Roles & Responsibilities

- 2.3.1 Airport Authority (AA)
 - The ADM will take on the role of AEC Manager, responsible for the management, staffing and communications of the AEC;
 - The Aviation Logistics Department representative will act on a supporting and liaison role in the AEC;
 - The AEC will monitor the inventory of GSE supplies/dollies and demand on real time basis;

- The AEC will review and endorse on the provision of temporary GSE area in the apron / airfield area including vacation of specific freighter parking bays, for the staging of cargo / empty ULDs or as an extension of the “interface area” to facilitate units handover between RHOs and CTOs; and
- Under an extreme contingency situation, the AEC Manager will in consultation with the Aviation Logistics Department representative and the Group, consider to exercise enforcement of CTO/RHO franchisees on directives or contingency measures necessary for the expeditious recovery of HKIA cargo or airport operations.

2.3.2 Carrier Liaison Group (CLG)

- Representing the interests of the airlines community; and
- Maintaining a close communication with the Group on latest incident developments, situation reports (SITREP) and contingency measures implemented / to be implemented by the CRCs to contain and mitigate contingency situation of the respective CTOs.

2.3.3 Cargo Terminal Operators (CTOs), Express Cargo Terminal Operators (ECT)

Each CTO/ECT is required to:

- Update its situation and performance in the provision of air cargo services;
- Establish a direct telephone line to connect their CRC/Crisis Management Centre with the Group;
- Provide all necessary information to support CRC in coordinating and implementing contingency measures as directed by the Technical Working Group (TWG) the Group;
- Update the Group with latest inventory and utilisation of all cargo-related GSE; and
- Support the co-ordination, mobilisation and implementation of contingency measures as agreed by the Group.

2.3.4 Ramp Handling Operators (RHOs)

Each RHO is required to:

- Update its situation and performance in the provision of air cargo services;
- Update the Group with latest inventory and utilisation of all cargo related GSE;
- Provide necessary information to support the CRC in coordinating and implementing the contingency measures as directed by the TWG and the Group; and
- Support the co-ordination, mobilisation and implementation of contingency measures as agreed by the Group.

C. Activation and Stand Down Procedures

3.1 Activation

The Group will be activated under either of the following two scenarios:

(a) Major Operation Disruption / Incident of Specific CTO

If operations disruption at the specific CTO(s) could not be effectively contained and resolved in a short time, its operation impacts may likely be extended to other CTO(s) and / or airport operations of HKIA. Such operations disruption may arise due to major power outage, cargo management systems breakdown, material handling system failure, shortage in critical resources or unexpected surge in the service demands etc.

(b) AEC Activation with Impact on Cargo Operation

In the event of AEC activation in managing major incident at HKIA, which is likely to or has resulted in major impacts on air cargo operations, the Airport Duty Manager, ALD and CLG representative will jointly assess the need to activate the Group for contingency management to mitigate impacts on air cargo operations.

3.2 Stand Down

3.2.1 Stand down of the AEC-Cargo Group will be considered if the operational impacts on air cargo community and airport operations of HKIA have been effectively contained and recovered, and the impact on CTOs could be effectively mitigated by their own resources and operation recovery could be effective within a short period of time i.e. 2-3 hours.

3.3 The AEC – Cargo Group Activation and Stand Down Procedures are in Attachment A.

D. Contingency Measures

To mitigate the risks of operational impacts caused by the cargo operation irregularity and to minimise disruptions that may cause to airport operations, a contingency framework is in place to provide resilience. The framework forms the guidelines for a broad approach in dealing with abnormalities of cargo operations at HKIA.

4.1 To mitigate and resolve impacts in cargo operations, the Group may mobilise contingency measures such as:

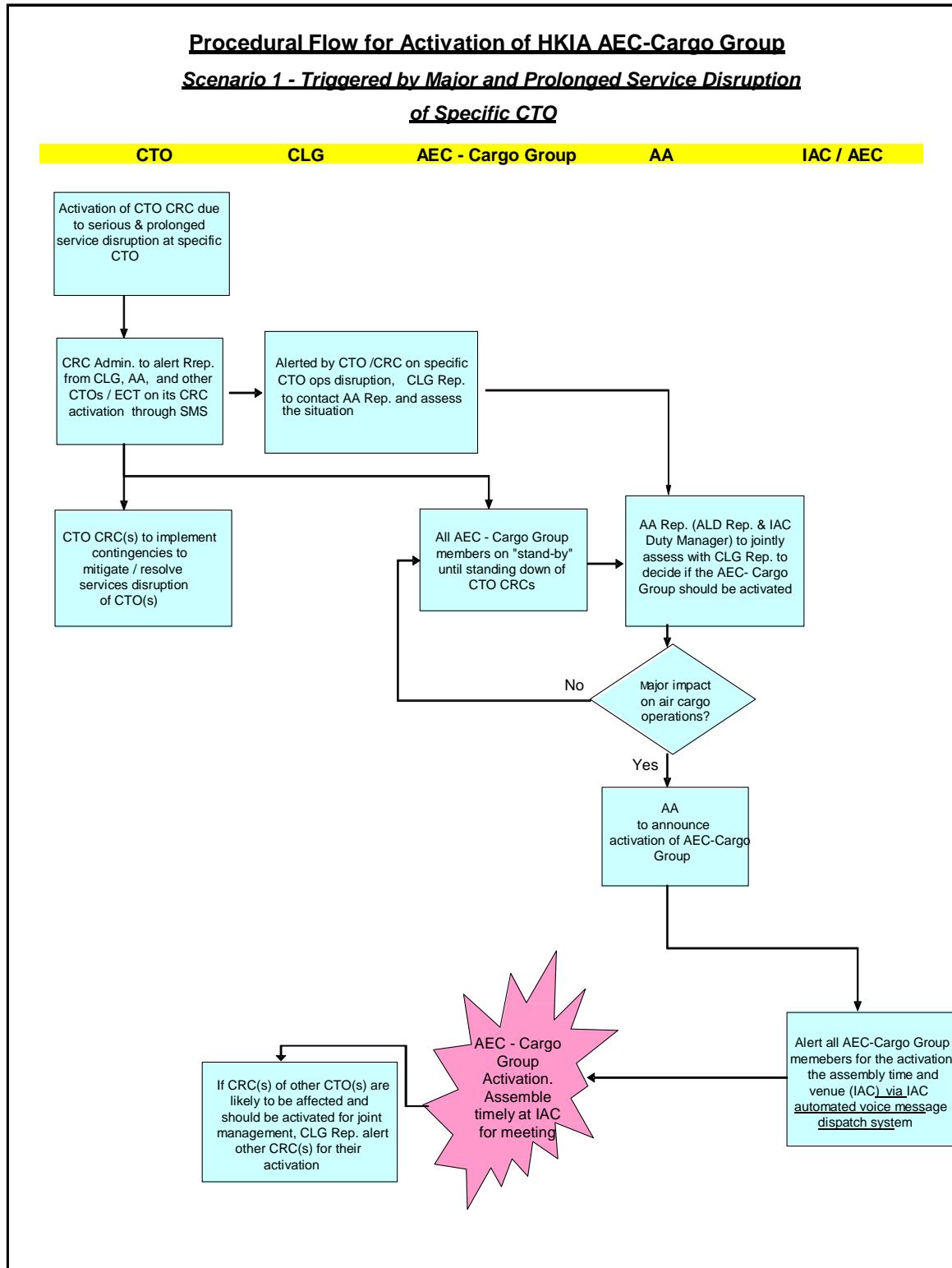
- (a) Activation of contingency area in the apron for temporary staging of non- urgent cargo / empty airline ULDs for RHOs/CTOs such as:
 - Designated GSE area in the cargo and passenger apron; or/and
 - Other airfield area designated by Airport Duty Manager;
- (b) Vacant of designated freighter parking bay(s) at cargo apron if required and approved by AA Apron Control for:
 - Provision of additional area for contingency staging of cargo/empty ULDs;
 - Provision of contingency area for temporary extension of “interface” area to facilitate inbound/outbound units handover between CTOs and RHOs.

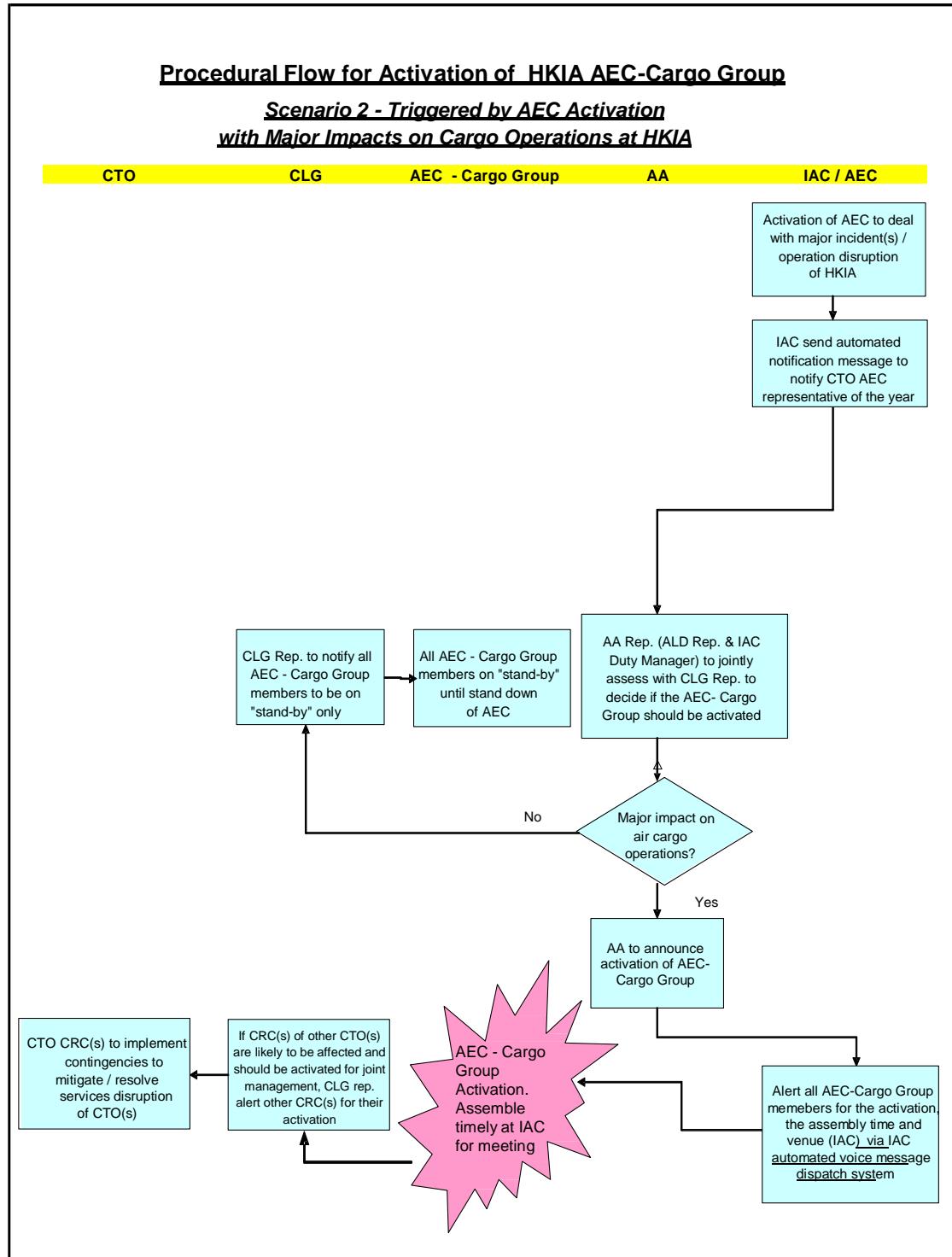
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- (c) To optimise utilization of airside staging area / GSE, RHOs/CTOs are required to jointly implement “just-in-time” inbound/outbound units transfer as below:
- Export cargo units for freighters (except for 1st batch of 8 ULDs in accordance with loading plan) is not to be dispatched from CTOs until concerned aircraft of short turnaround flight has touched down;
 - Export cargo units for passenger flights will be dispatched from CTOs only for flights with ETD;
 - CTOs shall obtain the most updated flight information (e.g. ETA/ETD) through the Flight Information Display System (FIDS) or AEC via CTO representative at AEC. For long-stay aircraft e.g. aircraft staying overnight at HKIA, or those without confirmation by the concerned airline whether it's active and operational, cargo units regardless of passenger flight or freighter shall not be dispatched from CTOs.
 - Inbound ULDs shall be transferred into the cargo terminal immediately.
 - In the case that CTOs could not transfer the ULDs into the terminal immediately, import cargo/ULDs should not be staged at airside for more than a specified period after flight arrival as agreed at AEC - Cargo Group to avoid over-staging. Inbound cargo / ULD exceeding such standard from flight arrival must be immediately transferred into CTO to release the dolly resources.

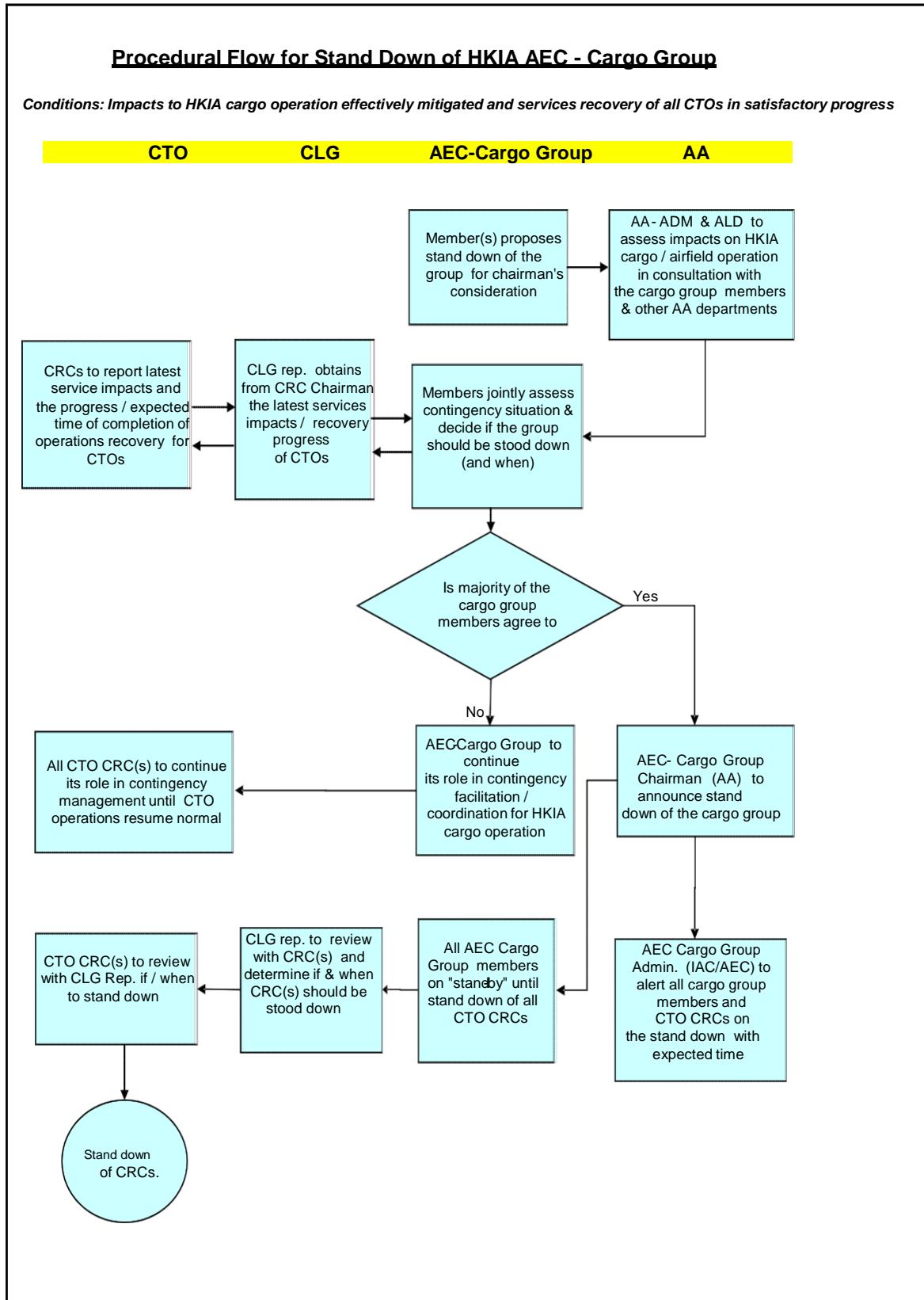
4.2 The activation of one or more of the above contingency measures is based upon the incident development and operation needs and to be jointly agreed by all members of the Group.

4.3 The HKIA Cargo Contingency Management Structure is in Attachment B.

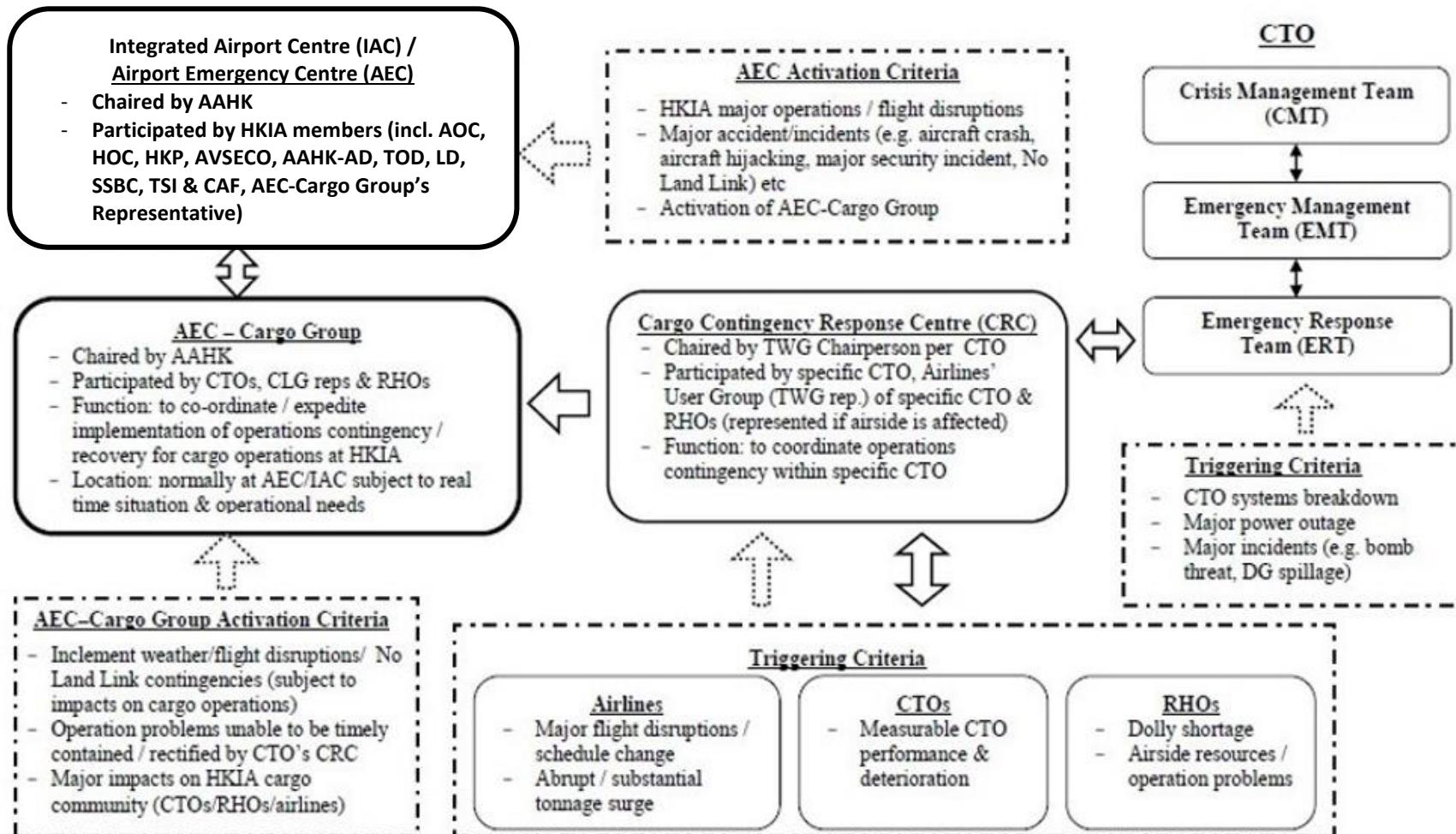
Attachment A – Flow Chart of AEC – Cargo Group Activation/ Stand Down







Attachment B – HKIA Cargo Contingency Management Structure



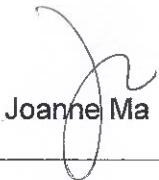
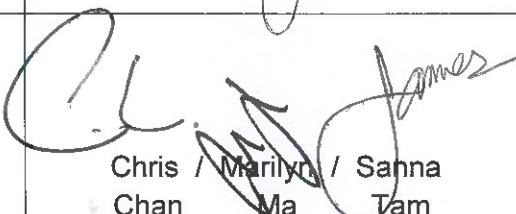
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Business Continuity Manual

Business Continuity Plan: D1

No Land Link Plan

		Signature	Revision	Effective Date
Updated By	AGM TOD	 Joanne Ma		
Updated By	AGM LD	 Chris Chan / Marilyn Ma / Sanna Tam	34	Nov 2023
Reviewed By	AGM BCP SSBC	 Emily Chu		
Approved By	GM SSBC	 David Jea		

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V	Appendix D Vehicle Fuel Plan	D1.71
VI	Appendix E AAHK Staff Ferry Plan	D1.73
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Exhibit 1: Approval letter of “Conversion of SkyPier for Cross-Boundary Ferry Passenger to a Domestic Pier in the event of the activation of No Land Link”.

Exhibit 2: Exemption certificate of crew rest time.

Exhibit 3: “Action Checklist on Emergency Public Passenger Transport Services in case of No Land Link to/from Lantau Island and Chek Lap Kok” issued by Transport Department.

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A. Introduction

1. This document identifies the possible land link disruption scenarios between in-town and the Airport, the anticipated consequences with regard to operations at the Airport, the estimated demands for passenger, staff and cargo flows that need to be dealt with, and the facilities and infrastructures that may be mobilized to provide alternative links in order to sustain aviation operations.
2. This document also delineates the different stages of development leading to one of these disruption scenarios, i.e. the loss of all land links scenario, and the various preparation, response and recovery actions.
3. This document dovetails with the Airport Authority Hong Kong (AAHK) Emergency Procedures Manual (EPM), Volume 3, Part 14, “Landside Transport Emergencies”, which describes the roles and responsibilities of the responding parties.
4. This document contains several parts :
 - a. The first part of this document lays out overview of the No Land Link Plan.
 - b. Appendix A lays out the passenger ferry recovery processes.
 - c. Appendix B lays out the airport provisions and cargo recovery processes.
 - d. Appendix C lays out waste management process.
 - e. Appendix D lays out vehicle fuel recovery measures.
 - f. Appendix E lays out AAHK staff ferry recovery plan.
 - g. Appendix F lays out Airport Road detour strategy.

B. Potential Airport Disruptions and Response Strategy

1. Potential airport disruptions are expected to be extreme and may include :
 - a. Passenger numbers quickly building up in the terminal because lack of transportation to take them to town.
 - b. Flights may experience extreme delays as airlines debate whether to take off without passengers as they are unable to come onto the Airport from town.
 - c. Aircraft parking stands may quickly reach saturation as airlines may be reluctant to take off with empty planes.
 - d. Contingency parking of aircraft on taxiway may be enacted.
 - e. Once taxiway contingency parking and apron parking capacities are reached, then aircraft may be diverted away to alternate airports.
 - f. Passenger overcrowding of terminal facilities due to very limited off-island transportation networks.
 - g. Passenger terminal buildings' food and beverage outlets may quickly run out of stocks with no resupplies available due to no land link.
 - h. Aircraft catering will have no food and beverage uploads to aircrafts.
 - i. Time sensitive cargo including perishables will quickly become an issue.
 - j. Warehouse capacities of the cargo terminal operators will quickly reach saturation as inbound cargo are stacked up without transportation available off the airport and into town.
 - k. Staffing will quickly become an issue for all airport companies, from airlines to ground handling agents to aircraft maintenance companies to fuel tank

farm staff to ramp and cargo operators to civil servants from Civil Aviation Department (CAD), Hong Kong Police Force (HKPF), Immigration Department (ImmD), Customs and Excise Department (C&ED) and Department of Health.

2. Projected recovery capacities for passenger and cargo are contained in their respective appendices.
3. Recovery capacities for passenger and for cargo will very much be dependent on alternate transportation modes made available to replace existing land links.
 - a. As and when an incident occurs, the objective is to give the necessary breathing space before the land link to and from the airport can be restored.
 - b. The Government will also set up a High Level Command Centre (HLCC) for No Land Link (NLL) to Airport and its key role is to give command in order to mobilize resources.
4. Alternate transportation modes:
 - a. For passengers and air crew members: ferries out of Tung Chung Pier, Mui Wo and Discovery Bay as well as emergency routes out of SkyPier Terminal; transportation to Hong Kong In-town from Zhuhai/ Macao via Hong Kong-Zhuhai-Macao Bridge (HZMB).
 - b. For airport staff and local residence: ferries out of Tung Chung Pier, Mui Wo and Discovery Bay; transportation to Hong Kong In-town from Zhuhai/ Macao via HZMB.
 - c. With the operation commencement of the Hong Kong-Zhuhai-Macao Bridge (HZMB), it may provide a possible alternative for transporting passengers to Hong Kong In-town from Zhuhai/ Macao via HZMB. It should be noted that extra transportation cost and time may be incurred, as well as necessary travel documents landing Mainland China and Macao may be required.
 - d. For airport provisions and cargo: Vehicle ferries and flat top barges.
5. Upon HLCC's notification of the activation of No Land Link contingency plans, SkyPier Terminal will be converted from a cross-boundary ferry/ Bonded Bus terminal into a domestic ferry terminal to provide the emergency ferry services, under the SkyPier Terminal Deed of Security Arrangement and the approval letter by the Security Bureau dated 19 September 2018 regarding Conversion of SkyPier for Cross-Boundary Ferry Passenger to a Domestic Pier in the event of the activation of "No Land Link" as attached in Exhibit 1.
6. The emergency ferry routes out of SkyPier Terminal constitutes only one response element amongst many other elements within the overall government response to No Land Link; other ferry routes, piers and facilities will be made use of, including rerouting/ truncating airport bus services to these ferry piers. For inbound emergency ferry from Central and Tuen Mun to SkyPier Terminal, priority shall be considered for accepting on board the airline operating crew members of departure flights.
7. Cross-boundary vessels that have been exempted from compliance with the requirements of crew rest time in the Exemption Certificate issued by the Hong

Kong Special Administrative Region (HKSAR), dated 21 December 2018, as attached in Exhibit 2, will be deployed for emergency ferry services.

8. Priority of recovery will focus on sorting out the on-airport disruptions first.
9. Flight Rescheduling Control System (FRCS) may be enacted to control flight operations; it aims to:
 - a. Recover airport operations in an orderly manner following a prolonged disruption scenario whereby many arrival and departure flights have been cancelled, delayed or diverted.
 - b. This is achieved by optimizing the use of arrival and departure slots whilst at the same time avoid overloading the Air Traffic Control (ATC) systems and other airport facilities such as parking stands, check-in facilities, etc.
 - c. In addition, FRCS may be used to avoid overwhelming the limited passenger and cargo capacities made available by the interim alternate transportation modes:
 - i. More flights will be allowed as more ferries become available to replace lost land links in taking passengers to and from the airport.
 - ii. More freight will be allowed as more barges become available to replace lost land links in taking cargo to and from the airport.
 - d. FRCS slot allocation criteria and working procedures may be referenced in EPM Volume 3 Part 16.

C. Land Link Disruption Scenarios and Alerting

1. Three anticipated scenarios that would impact severely on the normal operations of the Airport are identified. In any event, an effective alerting process amongst all concerned parties is essential for coordination of response handling.

1.0. Scenario A: Loss of Rail Links with Road Access Available

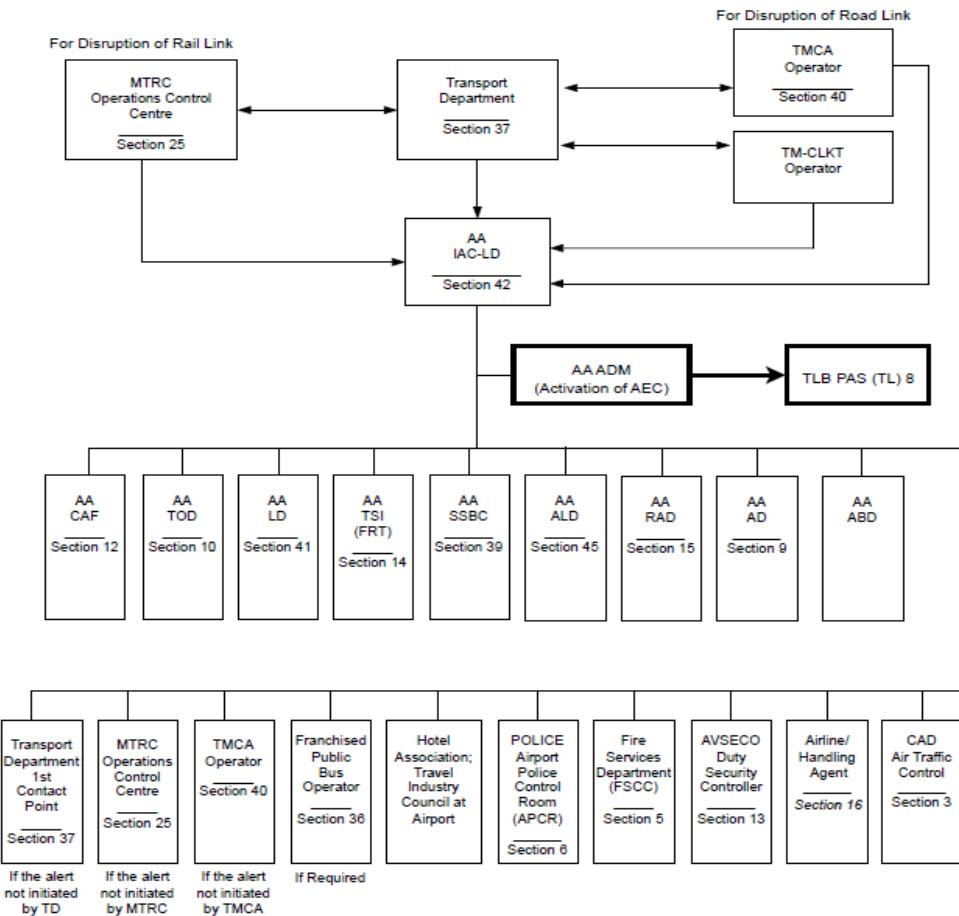
- 1.1. When the airport rail link is disrupted by various causes e.g. immobilized train, defected track, power supply failure, adverse weather, flooding, track obstruction, general strike, terrorism, etc., the road based transports will be strengthened to help clear the rail traffic. In addition, existing ferry services may also be strengthened to increase overall capacities.
- 1.2. When a common track of the rail line is blocked, priority should be given to minimizing the disruption to the airport-bound passengers using the Airport Express Line (AEL).
- 1.3. Contingency measures by Mass Transit Railway Corporation (MTRC) in the event of a partial or total closure of the AEL may include:
 - If only section of the track is disrupted, available bypass tracks will be used to maintain services as far as possible;
 - Emergency bus services will be mobilized to provide relief services for affected railway sections;

- Relevant franchised bus operators will be requested to strengthen their services covering the affected railway sections.
- Arrange to truck and deliver the In-town Check-in (ITCI) baggage to the Destuffing Hall at the Airport.

1.4. Alerting Protocol of this Scenario A is illustrated at item 2.7 below.

2.0 Scenario B: Loss of Road Links with Rail Link Available

- 2.1 Loss of the road links between the Airport and in-town i.e. loss of both (a) the North Lantau Highway and Lantau Link (comprising Tsing Ma Bridge, Ma Wan Viaduct and Kap Shui Mun Bridge); and (b) the Tuen Mun – Chek Lap Kok Tunnel Road (TM-CLKT) connecting Tuen Mun with the Boundary Crossing Facilities (BCF), the North Lantau Highway and the Airport at Chek Lap Kok (CLK). The rail link i.e. the Airport Express Line (AEL) and MTR Tung Chung Line service are remained normal operation.
- 2.2 In the event that either (a) or (b) of the above road links is blocked or congested with the other one in normal road access, LD would implement necessary traffic diversion in order to maintain normal road link.
- 2.3 In the scenario of loss of all road links, the remaining rail link becomes the primary transportation for all passengers and staff to commute between the Airport and in-town.
- 2.4 Increased rail service schedule, enhancement in other supplemental services will be required, for example the connection bus service between the Airport and Tung Chung and other stations in-town, crowd management and in particular traffic control in connecting AEL and MTR stations etc.
- 2.5 Should the incident extend for more than a single day, increased sea links between ferry connection points throughout Kowloon, Hong Kong Island, Lantau and CLK would be activated. This would include strengthening existing ferry services between Tuen Mun and Tung Chung and if considered necessary, put into place emergency ferry service between Tsuen Wan and Tung Chung in accordance to the “Landside Transport Emergencies”, Part 14, in HKIA Emergency Procedures Manual.
- 2.6 A coordinated and multi-media public information management plan needs to be formulated and carried out that would include multi-media announcements to the public with details on special traffic arrangements, information available on enquiry hotlines and special websites, flight schedules and other airline related information dissemination.
- 2.7 Below is alerting protocol for Scenario A – Loss of Rail Links with Road Access Available & Scenario B – Loss of Road Links with Rail Link Available



3.0 Scenario C: Loss of All Land Links

- 3.1 In this scenario, there is a total loss of rail and land links.
- 3.2 The contingency arrangement relies on ferry as the primary transportation for all passengers and staff. The demand for maritime links for air passengers and airport staff would be much higher.
- 3.3 Apart from enhancing existing ferry services and mobilizing local emergency ferry service between Tsuen Wan and Tung Chung, emergency ferry services using SkyPier Terminal and cross-boundary ferries and/or Motor Boats and Tug Boats Association (MBTA) ferries would also be activated as part of the contingency plans. It requires a very short and practical lead time to activate the contingency arrangement to maintain a reasonable level of airport operations.
- 3.4 Enhancement of supplemental services will also be required, for example the connection bus, feeder bus and coach services to transport passengers between the Airport and various ferry connection points.
- 3.5 Existing feeder franchised bus service between HZMB Hong Kong Port and the Airport will be maintained for passengers possessing valid travel documents landing Mainland China/ Macao to travel back to Hong Kong In-town via HZMB.

- 3.6 A coordinated media communications plan needs to be formulated and carried out together with Transport Department (TD) to update the passengers, airport business partners and the public on the airport situation, relevant special traffic arrangements, flight schedules and other airline related information dissemination. The information will be made available to the public through terminal public announcement, Universal Display System (UDS), Flight Information Display System (FIDS), HKIA website, My HKG mobile phone application.
- 3.7 Should there be a prolonged closure of all land links, various contingency measures would be enacted where appropriate including crowd management, FRCS, air traffic control, flight diversion, etc. in order to minimize on airport operational impact.

D. Preparation Prior to and Actions upon Activation of No Land Link Contingency Plans

1. In any of the above scenarios, disruption on airport operations would be encountered at the early stage upon occurrence of major transportation disorders. Immediate response measures are identified to reduce initial impact; and preparations are to be in place to facilitate the possible activation of NLL contingency plan upon Government's instruction. Based on initial assessment of the severity of situation, a three-stage approach may be adopted:

1.0 **Stage One:** Incident occurred, e.g. alarm activated, with unknown impact and checking time

1.1 Direct link between the impact detection systems of the Kap Shui Mun Bridge and the Tsing Ma Bridge and the Integrated Airport Centre (IAC) have been installed for immediate alert upon crash incident.

1.2 **Action items for parties concerned**

AAHK

a. Depending on needs, Airport Duty Manager (ADM) may activate Airport Emergency Centre (AEC) for coordination of response, and communicate with the Transport & Logistics Bureau (TLB) and the Transport Department (TD) on status update, e.g. traffic situation and impact, estimated airport passenger and staff travel demand; and on potential contingency arrangement.

b. Upon the notification by Transport Department's Emergency Transport Co-ordination Centre (ETCC) of the traffic condition, should AEC be established, TD's ETCC will maintain coordination with the AEC; in parallel, ADM will alert PAS(TL)8 of TLB.

c. ADM to alert Airline Operators Committee (AOC)/ airlines and their Ground Handling Agent (GHA) at the first instance so that all concerned

will be fully informed of the situation, while at the same time liaise with the TD and/or MTRC to understand the situation and impact to the traffic to and from airport.

- d. Landside Department (LD) to be observant of potential need of emergency ferry services to/ from SkyPier Terminal at HKIA; to notify subject cross-boundary ferry/ Bonded Bus operators of the incident, prepare to suspend all cross-boundary ferry/ Bonded Bus services, and alert them on such potential need to mobilize high speed ferries as passenger transportation contingency; to advise on estimated supply of emergency ferry services to/ from SkyPier Terminal at HKIA.
- e. LD will contact bus operators on potential needs of shuttle services to convey arrival and departure passengers among Passenger Terminal Building (PTB), AsiaWorld-Expo (AWE) and SkyPier Terminal in case emergency passenger ferry services at SkyPier Terminal is activated.
- f. Upon receiving TD's notification and/or updates, AAHK will disseminate information to airport community (e.g. airlines, and Airport-related Organizations, AAHK staff members, passengers etc.) on latest public transport status and/ or special traffic arrangements to/ from the airport at appropriate times through various channels e.g. light emitting display (LED) display board or written notice boards at the Arrivals Hall, terminal public announcement in the Ground Transportation Centre (GTC)/ Arrivals Hall and UDS etc., Website and mobile apps may be used to alert passengers on the potential disruptions of air traffic.
- g. Deploy duty staff at strategic locations like Meeters and Greeters (M&G) Hall, AEL Platform on Level 5 (by MTRC), and Ground Transportation Centre (GTC) to advise passengers on the potential disruptions of transportation and implement crowd management if necessary.

AOC

- a. AOC, self-handled airlines and GHA to send representatives to AEC once activated to achieve integrated responses.

MTRC

- a. If it is railway disruption, MTRC to mobilize feeder bus service to pick up passengers stranded in the train from the incident location to and from the nearby connection points.

2.0 Stage Two: The closure is expected to last for over 2 hours

2.1 Action items for parties concerned

AAHK

- a. Depending on needs, ADM may activate Airport Emergency Centre (AEC) for coordination of response, and communicate with the Transport & Logistics Bureau (TLB) and the Transport Department (TD) on status update e.g. traffic situation and impact, estimated airport passenger and staff travel demand; and on potential contingency arrangement.
- b. Upon the notification by TD's ETCC of the traffic condition, should AEC be activated, TD's ETCC will maintain coordination with the AEC; in parallel, ADM will alert PAS(TL)8 of TLB.
- c. LD to check with TD if they are going to mobilize ferry operators and bus operators for the following additional services as contingency arrangements:
 - To enhance frequency of existing ferry service plying among Tuen Mun, Tung Chung, Sha Lo Wan and Tai O in North Lantau; between Central and Mui Wo in South Lantau; and between Central and Discovery Bay.
 - To mobilize emergency ferry services between Tsuen Wan Public Landing Steps Pier – Disneyland Resort Pier/ Tung Chung Development Pier;
 - To provide feeder bus service or truncated bus service to relieve traffic needs amongst airport and Tung Chung Pier, Mui Wo, Discovery Bay; and amongst Central Pier, Tuen Mun Pier and various MTR connection points in urban areas.
 - To confirm with TD their issuance of publicity about these contingency public passenger transport services including enhanced frequency of existing bus and ferry services, and operations of emergency bus and ferry services.
- d. LD to check with MTRC the readiness of providing shuttle services between Terminal 1 and AWE.
- e. LD to notify SkyPier Terminal Ferry/ Bonded Bus Handling Agent (FHA/ BHA) the possibility of SkyPier Terminal to be used for the transfer of passengers and air crew members as an emergency contingency arrangement.
- f. LD to check with TD, Marine Department (MD) the readiness of Tuen Mun Ferry Pier (TMFP) and Central Piers in case of NLL activation by HLCC.
- g. LD to request cross-boundary ferry/ Bonded Bus operators to be prepared to suspend all cross-boundary ferry/ Bonded Bus services and mobilize high speed ferry to support emergency ferry service at SkyPier Terminal to and from Central and Tuen Mun if the prolonged closure is expected.

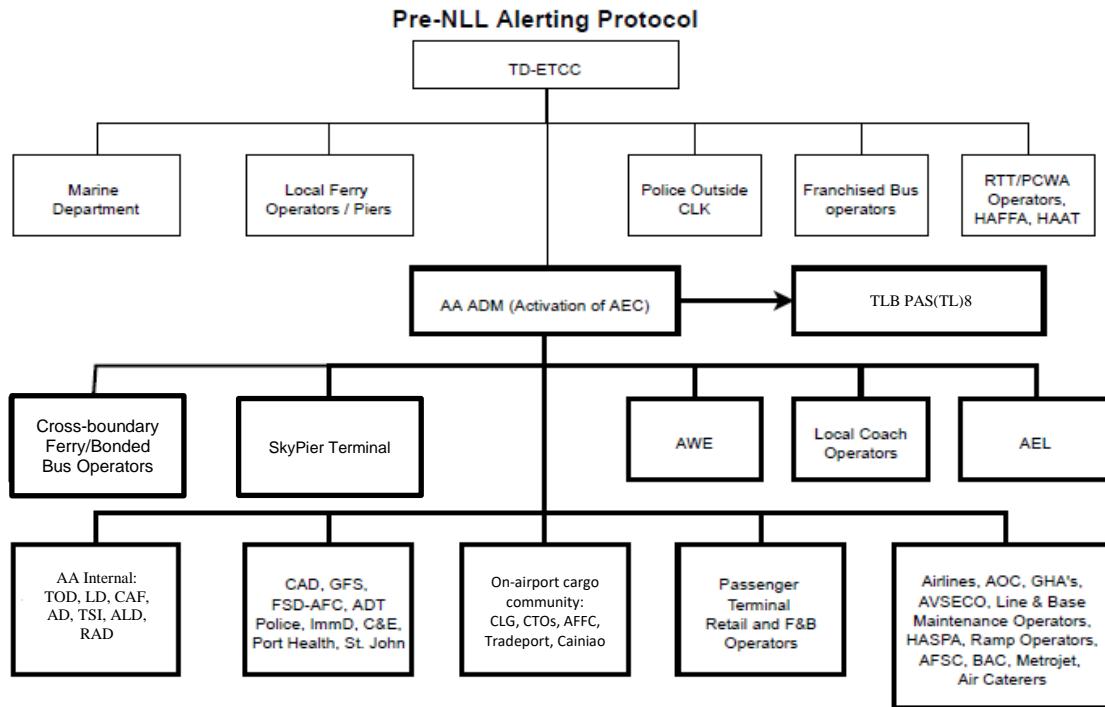
- h. To coordinate amongst AAHK, AOC, airlines, Ramp Handling Operators (RHOs), GHAs on possible flight consolidation, delay and cancellation. Airlines to inform passengers on relevant updated information e.g. :
 - i. Flight delayed, cancelled, rescheduled, etc.
 - ii. Means of transportation from the Airport to urban areas if available.
 - iii. Means of transportation from urban areas to the Airport if available.
 - iv. Above information should be considered by airlines and GHAs' to be relayed in real time to inbound aircraft so that inflight announcements may be made to start managing the expectations of the passengers.
- i. Airfield Department (AD) to coordinate with CAD for necessary flow control, diversion or check for start of regional flights before it is airborne to HKIA to relieve capacity constraint on parking stands and terminal facilities resulting from major traffic disruption;
- j. AD to prepare full apron operational plan and recovery plan.
- k. FRCS may be planned/ enacted to control flight operations with an aim to continue and/ or recover airport operations in an orderly manner through optimizing use of parking stands, gates and check in facilities.
- l. Upon receiving TD's notification and/ or updates, e.g. if emergency public passenger transport services are mobilized, AAHK will disseminate information to airport community (e.g. airlines, and Airport-related Organizations, AAHK staff members, passengers etc.) on latest public transport status and special traffic arrangements to/ from the Airport at appropriate times through various channels. e.g. LED display board or written notice boards at the Arrivals Hall, by terminal public announcement in the Ground Transportation Centre/ Arrivals Hall/ AEL platform and UDS etc. Website and mobile apps may be used to alert passengers on the potential disruptions of air traffic.
- m. Deploy duty staff at strategic locations like Meeters and Greeters Hall, AEL Platform (by MTRC), Ground Transportation Centre and ferry piers (by respective ferry pier operators) to advise passenger on the potential disruptions of transportation, and implement crowd management to minimize flow blockage to key terminal services and facilities.
- n. Terminal Operations Department (TOD) to alert ImmD, C&ED, catering outlets and other airport operation organizations to prepare for potential delay flight handling.

AOC

- a. AOC, self-handled airlines and GHAs will also need to consider deploying sufficient staff at check-in counters, transfer desks and In-town Check-in (ITCI) counters for queue management, passenger enquiries, etc.

2.2 Alerting protocol for Stage One and Two (Pre-NLL Plan)

Alert and Callout Chart



3.0 Stage Three: HLCC activated the NLL Contingency Plan

3.1 It might take up to 3 hours for HLCC and/or TD to reach a decision to activate the No Land Link Contingency Plan, after assessment of the situation, impact and chance of traffic services recovery.

3.2 HLCC core membership and terms of reference are as below:

a. ***Membership***

Permanent Secretary for Transport & Logistics (PSTL) (Chairman)

Core Members

Commissioner for Transport or his representative

Director of Marine or his representative

Chief Executive Officer/AAHK or his representative

Chief Executive Officer/MTRC or his representative

Deputy Secretary for Transport and Logistics 4

Principal Assistant Secretary for Transport and Logistics 8

Principal Assistant Secretary for Transport and Logistics 10

Principal Information Officer (Transport & Logistics)

b. ***Terms of Reference***

(i) To supervise and coordinate the transport contingency arrangements for an incident of NLL to the airport;

(ii) To give command as necessary in order to mobilize resources;

(iii) To report progress to Secretary for Transport and Logistics (STL) and other senior Government officials as necessary.

3.3 Subject to its deliberation, the HLCC will determine as to whether activation of additional emergency ferry services using SkyPier Terminal, i.e. activation of the No Land Link (NLL) Contingency Plan, is required. Upon activation of NLL Contingency Plan by the HLCC, **eight cross-boundary vessels** and **two local vessels** will be arranged by AAHK and TD respectively to provide additional emergency ferry services between SkyPier Terminal at HKIA and Central Ferry Piers/ TMFP. Constrained by the turnaround time, six and four vessels will be deployed for the SkyPier Terminal-Central and SkyPier Terminal-Tuen Mun respectively.

3.4 Action by AAHK

- a. At this stage AEC will likely have been activated, ADM will closely coordinate with TLB and TD and observe directives and support of High Level Command Centre (HLCC) chaired by the Permanent Secretary for Transport and Logistics (Transport) for response handling, advice on estimated airport passenger and staff travel demand, and drive the following on airport responses.
- b. Coordinate with TD for latest transportation arrangement, public announcement and their arrangement for berthing operation, signage erection and crowd management in the Central Ferry Piers.
- c. Coordinate with MD for their arrangement for berthing operation, signage erection and crowd management in the TMFP.
- d. Liaise with the existing SkyPier Terminal ferry operators, i.e. Shun Tak-China Travel Ship Management Ltd. (TurboJET), Chu Kong Passenger Transport Co. Ltd. (CKS) and Cotai Water Jet (Cotai), via FHA/ BHA to suspend all cross-boundary ferry/ Bonded Bus services and to mobilize 8 emergency vessels for emergency ferry services.

A full ferry list is enclosed in the attached Action Checklist on Emergency Public Passenger Transport Services in case of NLL to/ from Lantau Island and Chek Lap Kok (TD Action Checklist), i.e. Exhibit 3, Annex 11 refers.

e. LD will notify Dep Sec Commander (Airport) Field Operation of ImmD the activation of Contingency Plan, and request ferry operators to prepare required documents for submission to the Duty Officer at Duty Office at Immigration Hall at Terminal 1 HKIA, in order to obtain Permit-to-work i.e. No Objection Letter for crew. A template of the No-objection letter is attached in the Annex 10 of the enclosed TD Action Checklist. ImmD will issue no-objection letter for Mainland ferry crew to work locally upon receipt of the documents required include, but not limited to the following:

- (1) travel document of the crew;
- (2) a list specify the particulars and posts of crew; and

- (3) a company letter from ferry operator that guarantee to ensure the crew on board will leave Hong Kong upon or before the departure of the ferry/ vessel in which they arrived in Hong Kong. ImmD will process the necessary formalities to facilitate the crew's performance of duty in Hong Kong. A company letter template from ferry operator that guarantees to ensure the crew on board will leave Hong Kong upon or before the departure of the ferry / vessel is attached in the Annex 10 of the enclosed TD Action Checklist.
- f. To run shuttles among HKIA, AWE, and SkyPier Terminal, and set up emergency pick-up and drop-off points in PTB, GTC, AWE and SkyPier Terminal;
 - g. Assist crowd control in PTB, GTC and SkyPier Terminal;
 - h. Assist berthing control at SkyPier Terminal;
 - i. Provide porter services at emergency pick-up and drop-off points at GTC;
 - j. Assist in traffic control on Airport Island;
 - k. Carry out traffic management at Departures Kerb;
 - l. Coordinate with airport service providers/ contractors (e.g. Aviation Security Company Limited (AVSECO) / trolley contractor);
 - m. Continue to disseminate information to airport community (e.g. airlines, and Airport-related Organizations, AAHK staff members, passengers etc);

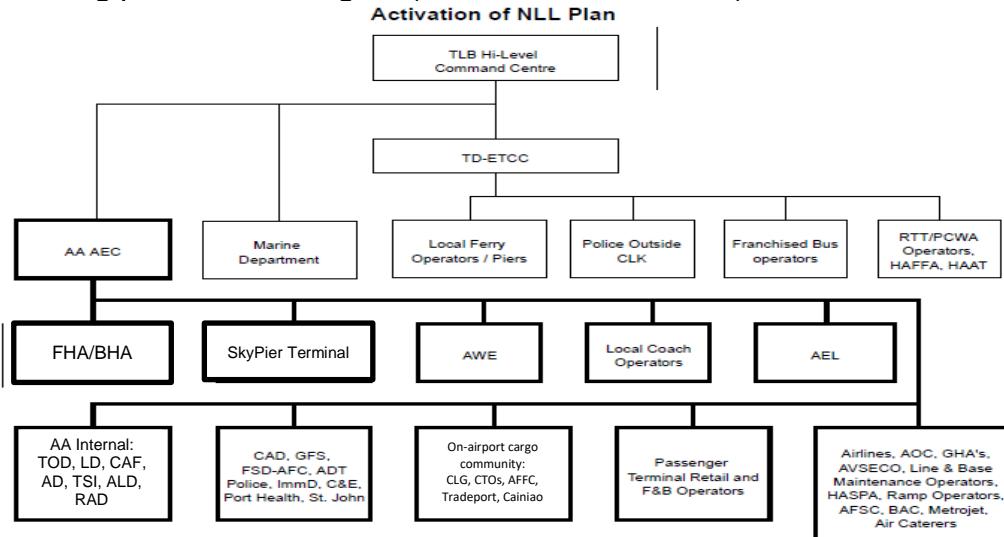
3.5 SkyPier Terminal arrangement

- a. Upon activation of the emergency ferry services of the No Land Link (NLL) Contingency Plan by the High Level Command Centre, AAHK will convert the cross-boundary operations of SkyPier Terminal to local ferry operation for providing emergency ferry services between SkyPier Terminal and Central Ferry Piers/ Tuen Mun Ferry Pier (TMFP*). Such emergency ferry services are primarily for air passengers and air crew members while the enhanced local ferry and emergency local ferry services between other piers in Lantau Island and the territories are provided to airport staff and other members of the public. (*TMFP will be shared use for the provision of emergency local ferry operation to and from SkyPier Terminal as well as its original local ferry to and from Tung Chung/ Sha Lo Wan/ Tai O).
- b. Under Cap. 483 Airport Authority Ordinance (AAO) and Cap. 483A Airport Authority Bylaw Part II Section 11, the Authority may regulate the access to and the conduct of persons in the AAO Restricted Area. Upon activation of the NLL Contingency Plan, SkyPier Terminal will remain as a restricted area. No person other than bona fide airline departure/ arrival passengers, air crew members with air crew identity card, or persons with AAHK authorization shall be allowed access to the SkyPier Terminal. The AAHK will control

personnel access to the restricted areas at SkyPier Terminal in such manner as deemed appropriate under such contingency situation.

- c. Access control will be performed by AVSECO guarding the SkyPier Terminal entrance(s). In principal, access to SkyPier Terminal will be granted to departure passengers onboard ferries from downtown with valid travel document, and/ or valid air tickets or boarding passes; and be granted to arrival passengers at HKIA who possess valid entry documents or fulfill appropriate verification procedures by AVSECO. A staging area at Transition Deck on Level 6 has been identified to facilitate the arrival passenger crowd management. In the end these air passengers into SkyPier Terminal will either all be directly conveyed by AAHK coaches to terminal landside for normal check in procedures, or onboard ferries out to downtown piers.
 - d. Berthing facilities and operation staff in SkyPier Terminal, Central Ferry Piers and TMFP will be arranged by AAHK, TD and MD respectively within the three hours after activation by HLCC.
 - e. For the avoidance of doubt, TD will liaise with the Central Ferry Piers operators to prepare berth for emergency ferry services between Central Pier and SkyPier Terminal. In parallel, MD will liaise with the TMFP operator to prepare berth for additional emergency ferry services between TMFP and SkyPier Terminal. TD will liaise with Fortune Ferry Company Limited for allowing the TMFP to be shared use for the provision of emergency local ferry operation to and from SkyPier Terminal as well as its original local ferry to and from Tung Chung/ Sha Lo Wan/ Tai O.
- 3.6 For a prolonged closure of land link, the HLCC, together with relevant government departments including TD, MD and AAHK and MTRC will continuously assess the developing situation in order to best match flight operations to the sealift capabilities of the emergency ferry services.

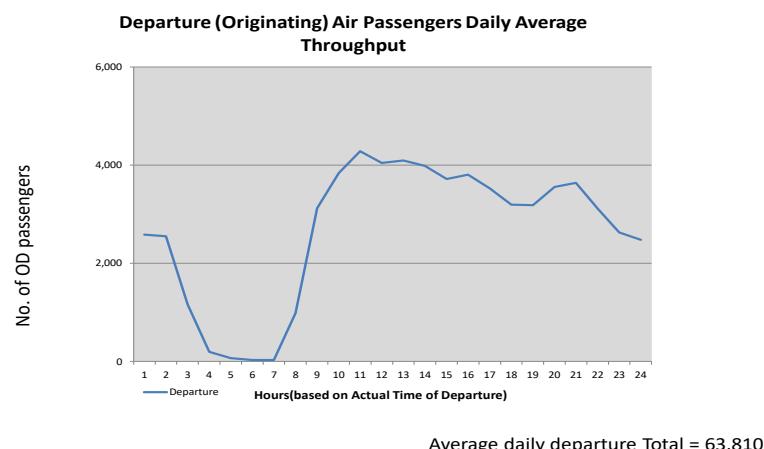
3.7 Alerting protocol for Stage 3 (Activation of NLL Plan)



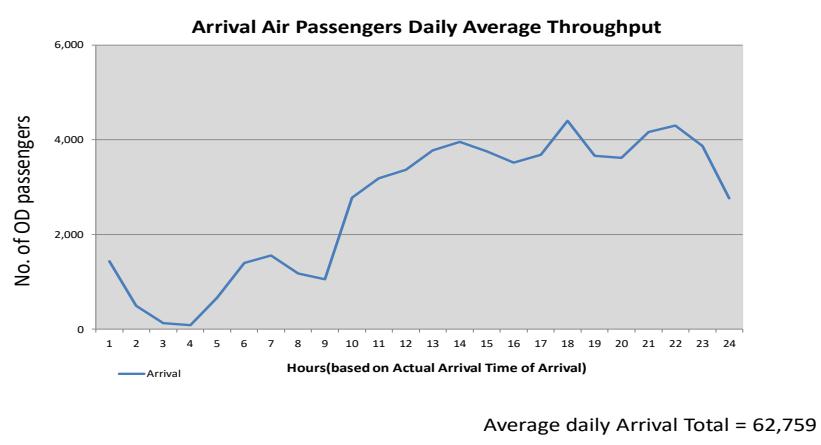
E. Demands – Passengers

1. It is recognized that in an extreme scenario, the enhancement of ferry services is highly constrained by the number of vessels readily available from the ferry companies, as well as the capacity and lack of air passenger oriented facilities at concerned piers.
2. The following graphs show the passenger demand profiles over 24 hours on an average day for both passengers going to the airport and leaving the airport for downtown as of 2014.

Air Passengers Demand – Departure



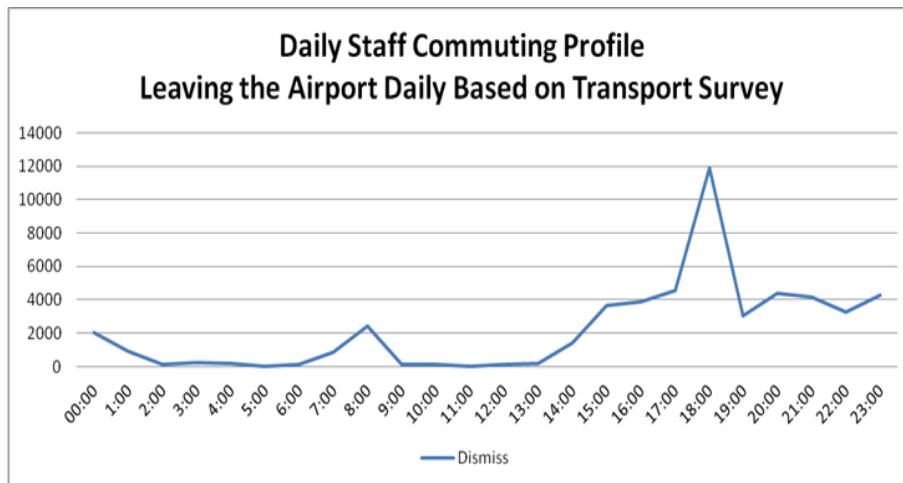
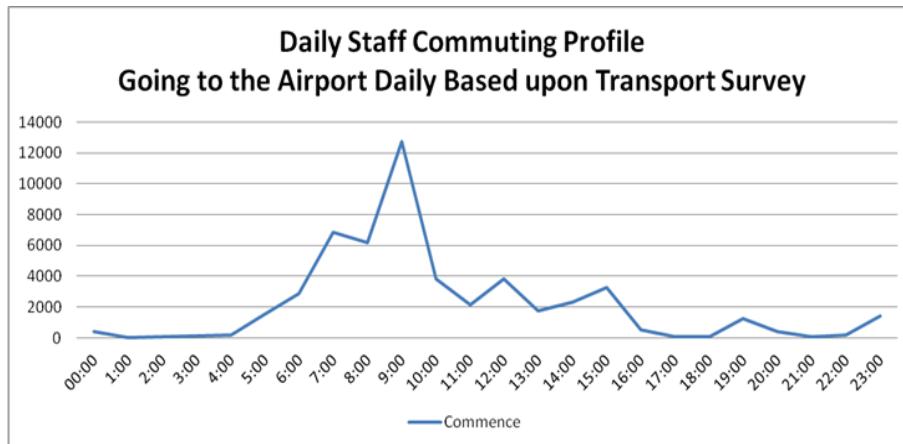
Air Passengers Demand – Arrival



3. These numbers will need to be adjusted due to growth projections for the coming years.

F. Demands – Airport Staff

1. The Airport to remain operating normally has up to 65,300 airport workers commuting to and from their places of work on a daily basis.
2. The following graphs show the airport workers demand profiles over 24 hours of an average weekday for both coming to work and going off work as of 2014; daily staff total (one way) is 52,240.

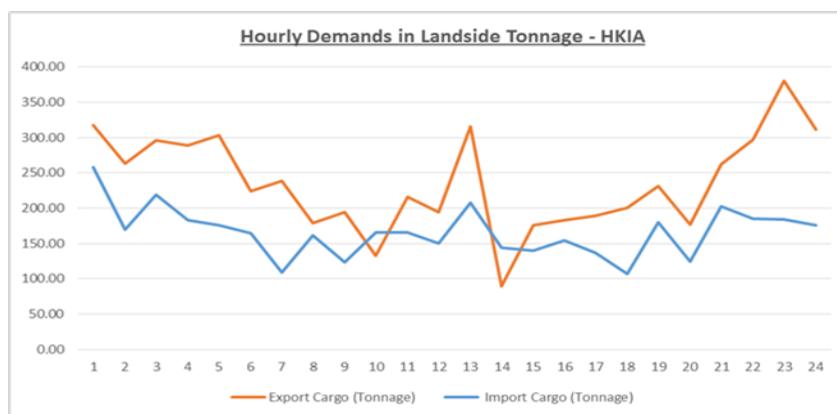


3. In addition, special attention needs to be focused on ensuring cockpit and cabin crews from the airlines are able to reach their designated downtown hotels to start their mandatory rest periods as well as able to return to the airport in time to operate their subsequent flights.
 - a. Crews not able to report for duty on time will have a potential knock-on effect of increasing aircraft parking congestion with the finite number of parking stands.
 - b. If there is a significant number of aircraft without crew, then there will be a corresponding decrease in the availability of aircraft parking stands.
 - c. It may reach a point where arriving aircraft may be significantly delayed or diverted because of limited availability of aircraft parking.

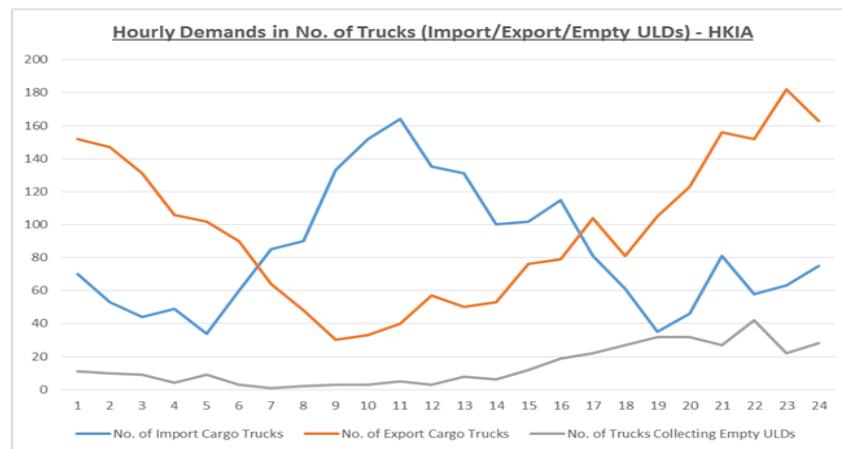
G. Demands – Air Cargo

1. With the loss of the road link to deliver air cargo and collect released cargo from respective air cargo terminals, barging the cargo between designated connecting loading and unloading points is necessary.
2. Working assumptions on cargo operations under No Land Link situation :
 - a. Preferred barging method would rely on flat-top barges with roll-on/ roll-off capabilities.
 - b. Dumb lighter barging is not preferred due to additional works needed for loading and unloading into and out of the shipping containers (TEU's) as well as the slow crane operations of getting the containers onto and off the barges.
 - c. Airlines and cargo forwarders would reroute their air cargo to other nearby ports until resumption of normal operations at HKIA.
3. The average daily cargo flow requirement is 2,724 tonnes (import) and 6,823 tonnes (export) in 2019.

The following graphs show the hourly tonnage profiles for Imports and Exports on typical busy days.



4. The following graphs show the hourly vehicular traffic profiles for typical busy days.



5. These numbers will need to be adjusted due to growth projections for the coming years.
6. With the loss of the road link, the only alternative for trucking cargo as well as for delivery of supplies and provisions to aircraft caterers and F&B outlets is the maritime links i.e. barges/ vehicle ferries between designated connecting loading and unloading points.

H. Demands – Supplies (Foodstuff) for Aircraft Caterers and Airport F&B Outlets

1. Considerable volumes of foodstuff such as ingredients and bottled water will also be required to be delivered to the aircraft caterers and food & beverage outlets.
2. The three caterers produce over 120,000 meals per day on average.
3. The following table shows approximate volume of supplies delivered to the airport community by lorry during an average day.

	Supplies delivered per day (x 1000kg)
Aircraft Caterers	110 to 120
T1 F&B Outlets & Convenience Stores	34
	Total = 144 to 154 per day

I. Supplies – Passenger Ferries

1. The cross-boundary ferry/ Bonded Bus services at SkyPier Terminal will be suspended, and be redeployed for emergency ferry services primarily for air passengers and air crew members.
2. AAHK will liaise with the existing SkyPier Terminal ferry operators, CKS, Cotai and TurboJET, on the provision of **eight** cross-boundary vessels for running the emergency ferry services between SkyPier Terminal and Central Ferry Piers/ TMFP. At least three hours will be needed to mobilize the vessels and to get SkyPier Terminal ready and clear off cross-boundary operations.
3. TD will liaise with MBTA on the provision of **two** local vessels under its contract with the latter for running the additional emergency local ferry services plying to/ from SkyPier Terminal.
4. Prioritize ferry usage to maintain airport operations may be needed:
 - a. Air passengers and air crew directed to use SkyPier Terminal.
 - b. Airport staff and Lantau residents to use domestic piers (Tung Chung, Mui Wo and Discovery Bay).
 - c. Existing ferry services at these piers will need to be enhanced.
 - d. Existing bus services to & from these piers will also need to be enhanced.

5. Currently, TD has an arrangement with the MBTA to provide emergency ferry services. In addition, TD will discuss with all existing franchised and licensed domestic ferry operators with a view to finding out how they would be able to help under the no land link situation.
6. Based on their current service commitments and operating conditions, the domestic ferry operators expressed that some limited emergency ferries would be available in 2 hours the soonest, and thereafter a longer lead time to mobilize more ferries.

J. Vehicular Ferry and Barge Availabilities

1. The mobilization of the barge is yet to be determined, subject to decision of appropriate party upon activation of NLL Plan.
2. Vessel types available within HKG.

	Vessel Types	Number in HK		Remarks
1	Vehicular Ferry	5 (Information provided by TD)		
2	Landing Barge (Flat top barge)	10 (Information provided by MD)		

3. Vessel types steaming times.

	(a) Vessel Types	(b) Vessel Speed ^a (Knots)	(c) Steaming Time	(d) Berthing Time (Minutes)	(e) Vehicle Unloading / Loading Time (Minutes)	(f) Total Turnaround Time (1 way) [c]+[d]+[e]	(g) Capacity Per direction (Tonnes)	(h) Capacity Per direction (No. of carrying unit)
1	Vehicular Ferry	10	90 mins (Kwun Tong to/from Mui Mo)	5	10 + 15 (assume 8 -10 vehicles row on / off time)	2 hr	Average 350 (range:122 -446)	8 - 10 vehicles (assume vehicles of 11m length)
2	Landing (Flat top) Barge	4	60 mins (CKS Tuen Mun Terminal to/from South East Quay at HKIA)	5	10 + 15 (assume 10 -12 vehicles row on / off time, and the time for lashing fixing)	1.5 hrs	2500	10 - 12 vehicles (assume vehicles of 11m length)

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Appendix A – No Land Link (NLL) Ferry Plan

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B. Introduction

1.0 Background of the No Land Link Ferry Plan

1. The Government established in 1998 contingency strategies in dealing with major traffic disruption on the land links serving the North Lantau and the airport under the following 3 scenarios:
 - a. Major rail disruption with normal road access
 - b. Major road disruption with rail in operation
 - c. Total closure of land links (No Land Link)
2. Based upon the government strategies established, the Transport Department (TD) has developed a procedure on “Action Checklist on Emergency Transport Arrangements for Land Links to/ from North-West Lantau and the Airport” and “Action Checklist on Emergency Public Passenger Transport Services in case of No Land Link to/ from Lantau Island and Chek Lap Kok (CLK)”.

2.0 Aims of the No Land Link Ferry Plan

1. The HKIA No Land Link business continuity ferry plans are to tie in with the TD's procedures and largely relates to the management and control of traffic and transport within the purview of the Airport Authority Hong Kong (AAHK).
2. The No Land Link Ferry Plans aim at a total loss of land links between Lantau Island and the city, where the only means of transport will be by sea transport.

C. Activation of the Ferry Plan and Piers Arrangement

1.0 Decision to activate the plan will be taken by the Government's High Level Command Centre (HLCC).

HLCC will be led by Permanent Secretary for Transport and Logistics (PSTL) of Transport and Logistics Bureau (TLB), with core membership including representatives from TLB, TD, Marine Department (MD), AAHK and Mass Transit Railway Corporation (MTRC). Its key role is to give command in order to mobilise resources. Discussions between TD and domestic ferry operators and Motor Boats and Tug Boats Association (MBTA) indicate that mobilization of domestic ferry services may take 2 hours at the soonest. Meanwhile, mobilization of cross-boundary vessels and SkyPier Terminal readiness may take up to 3 hours.

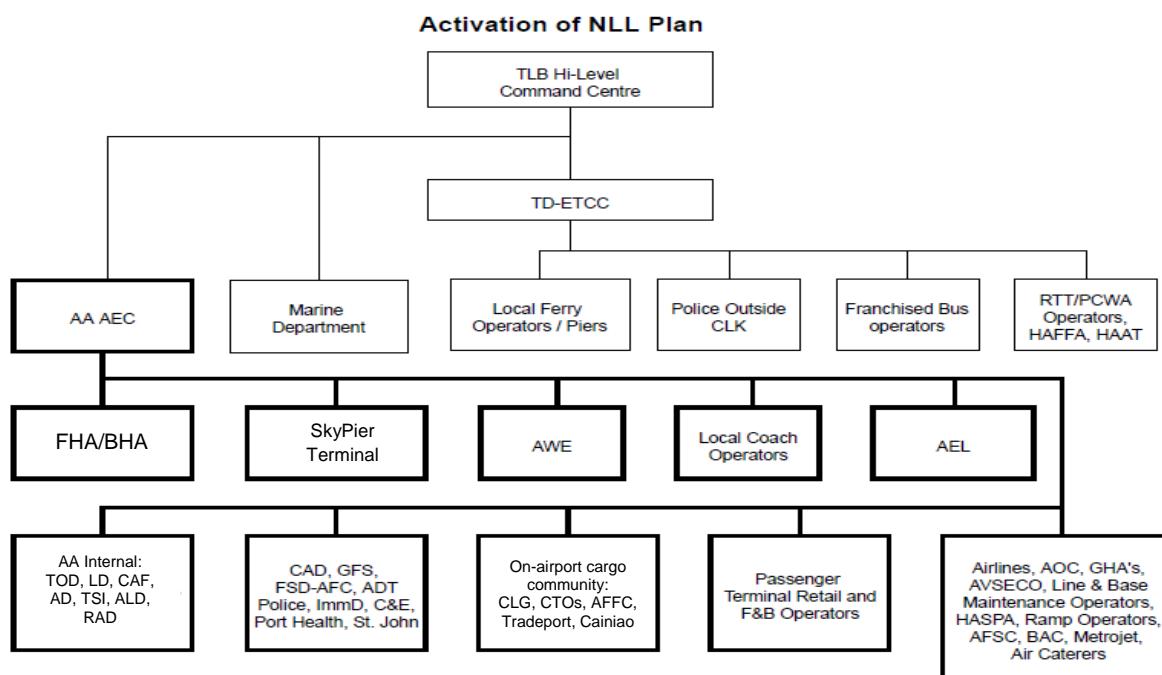
2.0 The following are the piers arrangement to handle passengers using vessels:

1. SkyPier Terminal is primarily for air passengers and air crew members.
2. Staff and Tung Chung/ Lantau residents are to use Lantau ferries at Tung Chung, Discovery Bay, and Mui Wo.

3. Cross-boundary type high-speed ferries (mobilized by AAHK) and Motor Boats & Tug Boats Association (MBTA) ferries (mobilized by Transport Department) will be used at the SkyPier Terminal.

D. Alert and Callout Process

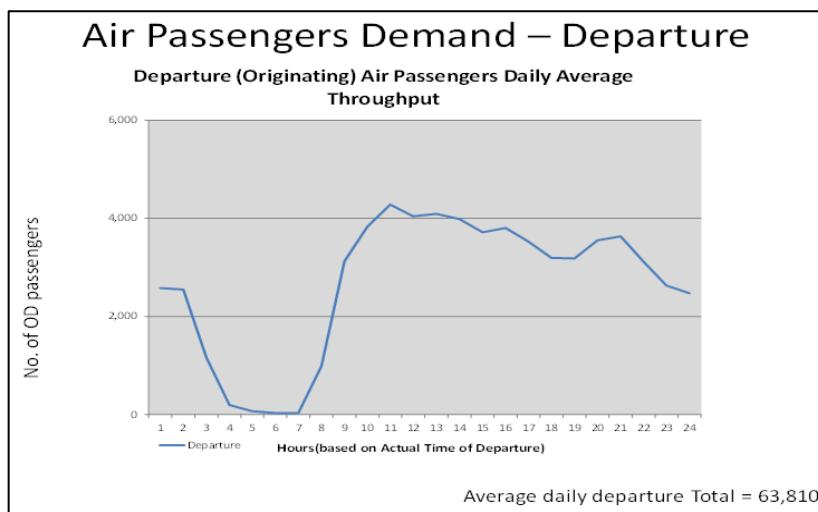
1. Upon decision to activate the No Land Link SkyPier Terminal ferry plan by HLCC, alerting procedures of relevant parties will be implemented as per the alert and callout chart below.
2. AAHK-AEC will be activated and maintain coordination with HLCC and/ or TD-Emergency Transport Co-ordination Centre (ETCC).
3. AAHK-AEC/ TD-ETCC/ HLCC to alert designated pier operators. AAHK-AEC alert and callout chart is as follows:



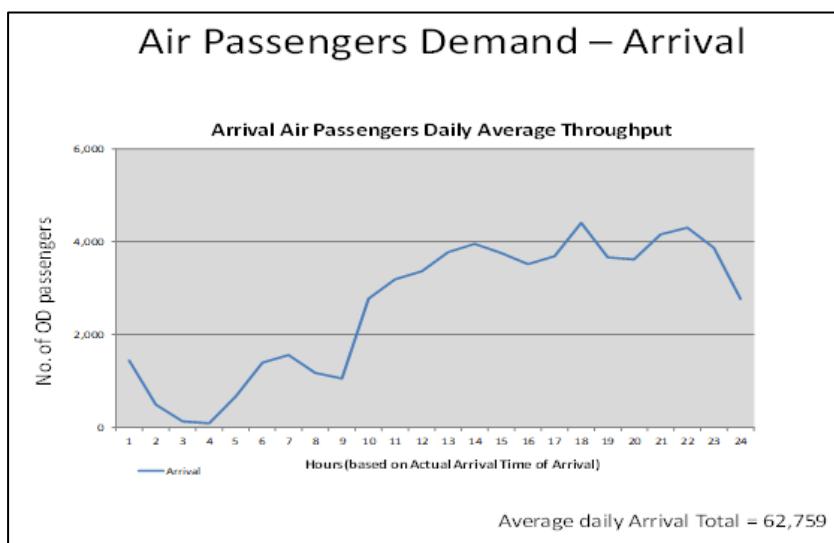
E. Demands and Handling Capacity – Air Passengers and Air Crew Members

1. Some 1,370 pax/hr are expected to use SkyPier Terminal considering its coping capacity, and another about 330 passengers may take Lantau ferries.
2. Arrival passengers will start to accumulate at a rate of approximately 3500/hr, assuming an 18-hour of busy time for a 24-hour operations. These numbers may be changed as passenger throughput increases.

- 3. Number of stranded passengers may reach up to 10,000 before sea operations can be fully implemented.
- 4. Departure passengers who are already at the Airport will not be affected whereas subsequent incoming passengers have to expect delay subject to implementation of the sea plan.
- 5. The following graphs show the passenger demand profiles over 24 hours on an average day for both passengers going to the airport and leaving the airport for downtown based on most recent throughput.



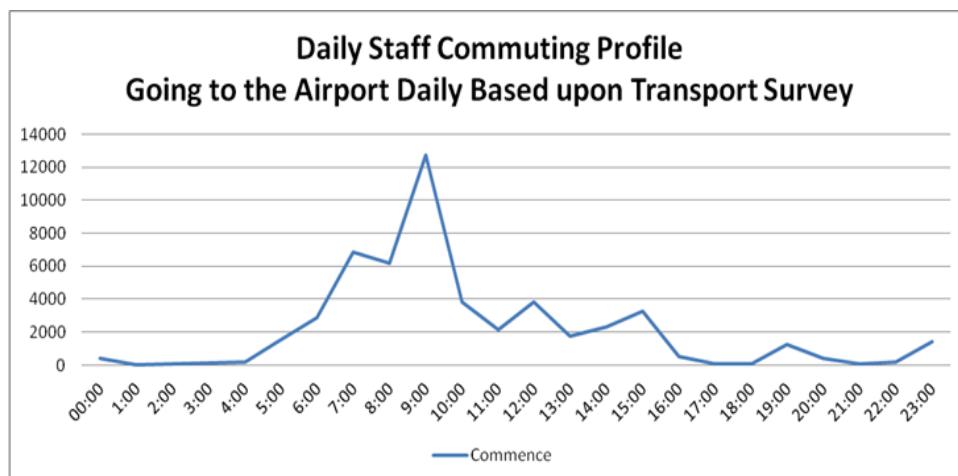
This air passenger demand profile will in all likelihood change upon a No Land Link situation. Passengers may choose to arrive onto the airport far in advance of their departure flight time which means the graph above may shift leftwards as passengers start their journey to the airport earlier.

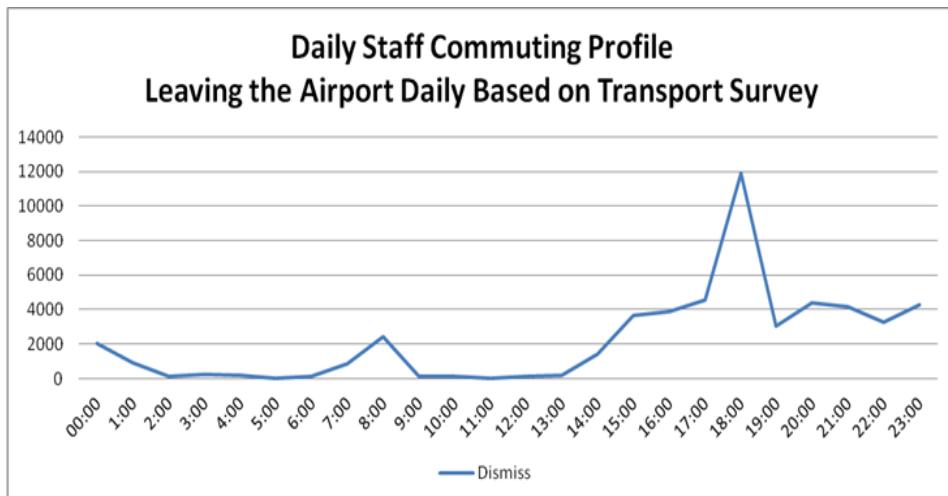


6. In addition, special attention needs to be focused on ensuring cockpit and cabin crews from the airlines are able to reach their designated hotels to start their mandatory rest periods as well as able to return to the airport in time to operate their subsequent flights.
7. Crews not able to report for duty on time will have a potential knock-on effect of increasing aircraft parking congestion with the finite number of parking stands.
8. If there is a significant number of aircraft without crew, then there will be a corresponding decrease in the availability of aircraft parking stands.
9. It may reach a point where arriving aircraft may be significantly delayed or diverted because of limited availability of aircraft parking.

F. Demands – Airport Staff

1. The Airport in operation normally has up to 65,300 airport workers commuting to/ from their places of work on a daily basis.
2. These procedures will also address the approximately 65,300 staff working at the Airport area; it is anticipated at least 52,240 trips (i.e. 104,480 for both ways) are commuted to/ from the Airport per day. They are expected to take Lantau ferries thus enabling SkyPier Terminal to be dedicated for air passengers and air crew members only.
3. TD would work with local ferry operators to enhance Lantau ferry services to meet increased needs from airport staff.
4. The following graphs show the airport workers demand profiles over 24 hours of an average weekday for both coming to work and going off work; daily staff total (one way) 52,240 trips.



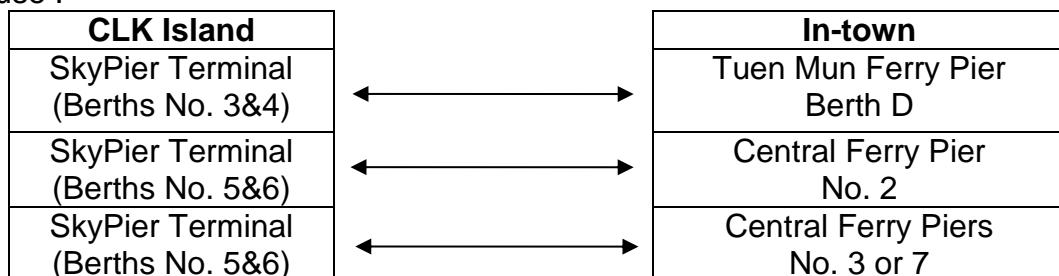


G. Ferry Plan

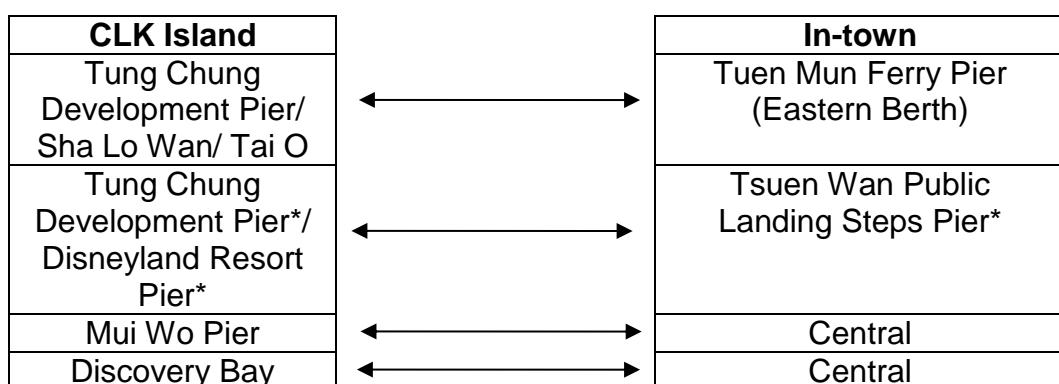
1.0 Arrival Passengers/ Staff Going Off-Airport Island Flow

1. SkyPier Terminal cross-boundary operations will be suspended after clearing the last sea-to-air/bridge-to-air and air-to-sea/air-to-bridge passenger at SkyPier Terminal and it will be converted to a local pier for No Land Link ferry operations.
2. With the berths available at SkyPier Terminal and an estimate of 10 nos. of vessels (each with capacity of around 220 to 300 passengers) including eight cross-boundary vessels and two local vessels to be arranged by AAHK and TD respectively to provide emergency ferry services, the anticipated throughput will be in the range of 1,370 pax/hr, one way; see flow diagram below for each berth's routing.
3. Currently AAHK and TD have an arrangement with the SkyPier Terminal's Ferry/ Bonded Bus Handling Agent (FHA/BHA) and the MBTA respectively for the following arrangement to ascertain the feasibility of the ferry plan execution:
 - a. AA mobilizes Chu Kong Passenger Transport Co. Ltd. (CKS), Cotai Water Jet (Cotai) and Shun Tak-China Travel Ship Management Ltd. (TurboJET) to deploy 8 vessels; and
 - b. TD mobilizes MBTA to deploy 2 vessels.
4. To enable cross-boundary vessels operators e.g. CKS, Cotai and TurboJET, etc. to provide the aforementioned service, the following are AAHK's action items:

- i. To ensure those CKS, Cotai and TurboJET ferries mobilized for emergency use at the time are the cross-boundary vessels on the Exemption Certificate granted by the Hong Kong Special Administrative Region (HKSAR) as stated in para. B.7. of the NLL Plan – Overview; and
 - ii. To prepare required documents for submission to the Duty Officer of Immigration Department (ImmD) for permit-to-work i.e. no objection letter (Annex 10 of the enclosed TD Action Checklist), for crew. Respective documents including but not limited to the following:
 - travel document of the crew;
 - a list specify the particulars and posts of crew;
 - a company letter from ferry operator that guarantee to ensure the crew on board will leave Hong Kong upon or before the departure of the ferry/ vessel in which they arrived in Hong Kong (Annex 10 of the enclosed TD Action Checklist).
5. To streamline the flow of people, SkyPier Terminal will primarily be used by air passengers and air crew members whereas other, existing, Lantau piers will be designated for staff and the community use.
6. Ferry routes designated primarily for air passenger and air crew members use :



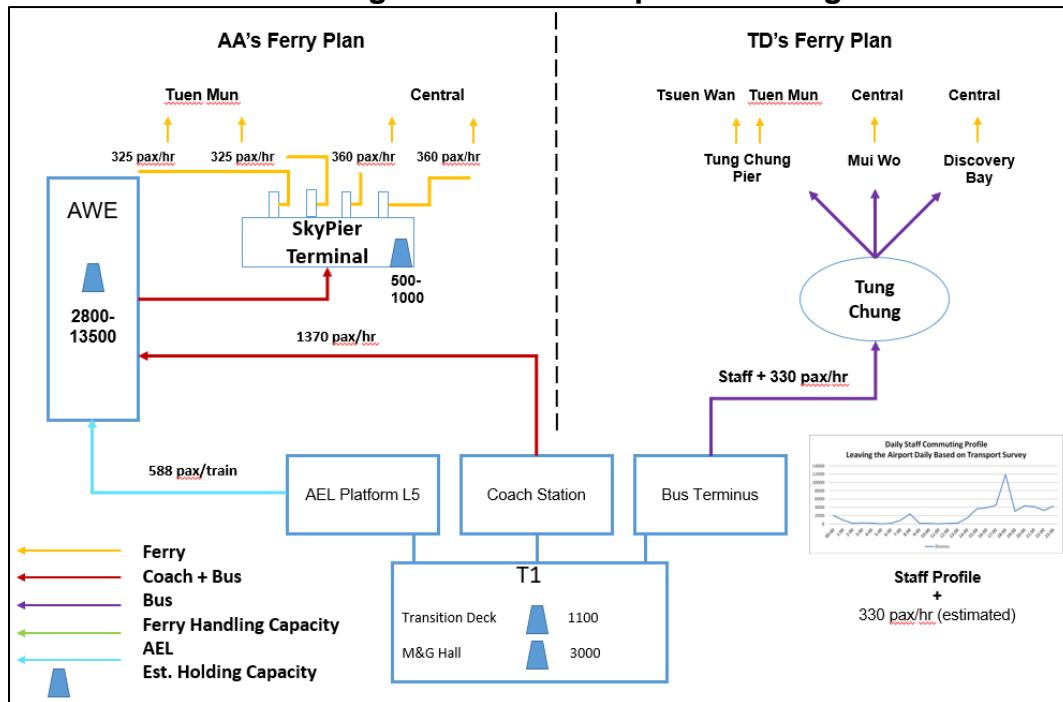
7. Ferry routes designated for staff and community use:



*The service between Tung Chung Development Pier or Disney Resort Pier and Tsuen Wan Public Landing Steps Pier is an emergency ferry service covered under the emergency services contract between TD and MBTA.

8. To handle the stranded passengers, AsiaWorld-Expo (AWE) is considered suitable for staging passengers since facilities and services such as space, seating, toilets and catering can be made available.
 9. As a backup, the following areas can also hold limited amount of passengers:
 - a. T1 Meeters & Greeters Hall – about 3,000
 - b. T1 Transition Deck – about 1,100
 - c. SkyPier Terminal – about 500 / 1,000
 10. Flow diagram showing the Arrival Passenger/ Staff Off-Airport Island Flow:

Arrival Passengers/ Staff Off-Airport Handling

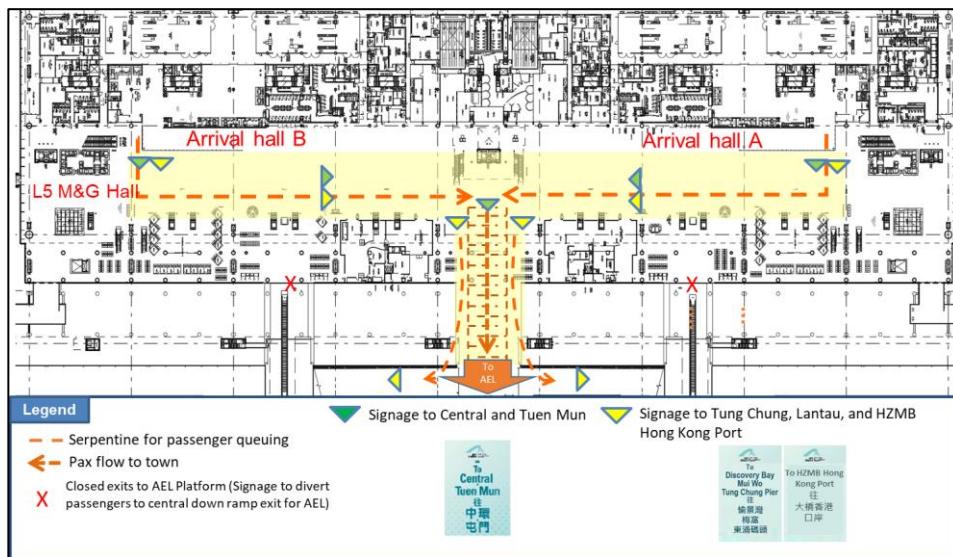


2.0 Airport Express Line (AEL)

1. Coordinate with MTRC to provide shuttle services between Terminal 1 (T1) and AWE.

Below diagram illustrates the operational flow and signage for the MTRC shuttle services at the T1 Arrivals Hall:

Flow from T1 M&G Hall to AEL Platform on Level 5



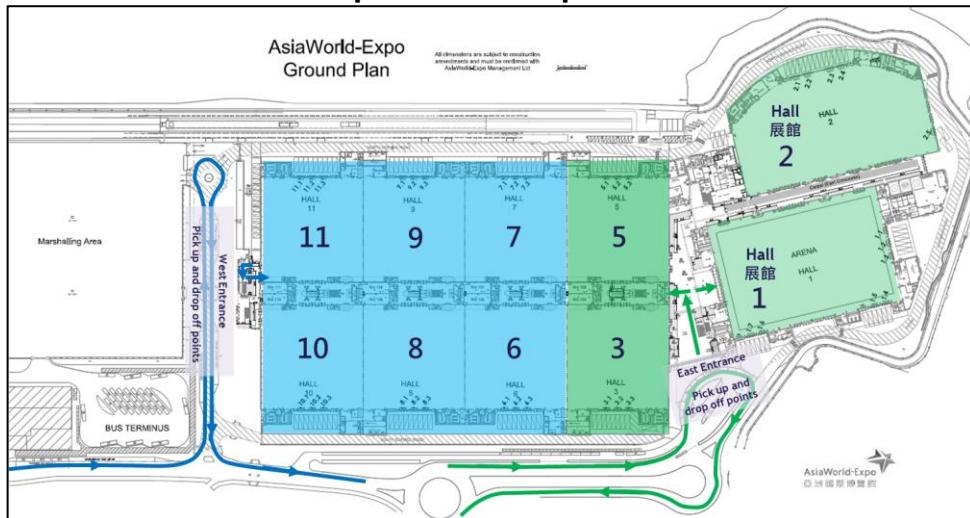
2. The maximum capacity of AEL is no more than 600 pax/train, with hourly throughput depending on train frequency during No Land Link scenario.
3. Aviation Security Company Limited (AVSECO), Police, AWE, Landside Department (LD) and Terminal Operations Department (TOD) coordinate together with MTRC to ensure crowd management provided at the platform for smooth and safe operations.
4. Crowd management set-up to follow that laid out for managing crowds during typhoons.

3.0 AWE

1. AWE will provide designated halls/ arenas for temporary staging of air passengers/ air crew members, subject to real time availability, with arrangement of crowd management set-up, seating, and other facilities.
2. Queues inside the designated halls/ arenas at AWE shall be separated by destinations to Tuen Mun or Central respectively.
3. The approximate capacity of each halls/ arenas are listed below:
 - a. Hall 1 – about 13,500 pax
 - b. Hall 2 – about 5,050 pax
 - c. Other Halls – about 2,800 pax
4. Air passengers and air crew members will disembark from coaches at either the east or west side of AWE, queue up inside the designated halls/ arenas and wait to be further sent to SkyPier Terminal for sea transportation to Central/ Tuen Mun.

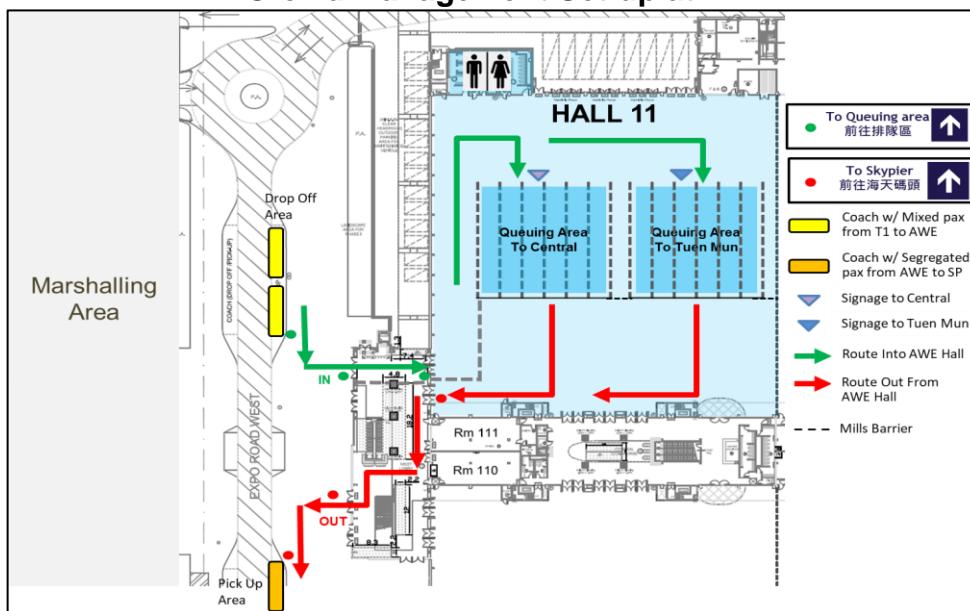
5. The coach drop-off and pick-up points at AWE are as follows, with coach drop-off/ pick-up taking place at East Entrance if Hall 1, 2, 3, and 5 are utilized during No Land Link scenario; while West Entrance is used when crowd management set-up runs at Hall 6-11.

Coach Drop-off & Pick-up Points at AWE



6. The crowd management set-up at AWE is as follows,

Crowd Management Set-up at AWE

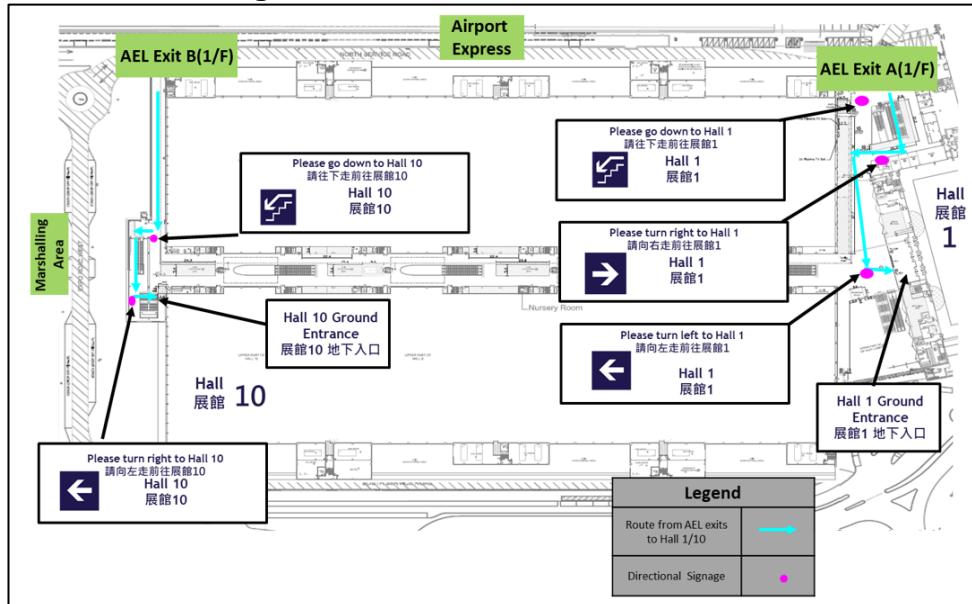


(Remarks: Hall 11 is used for illustration of crowd management set-up)

7. Alternatively air passengers and air crew members may take AEL to AWE, assuming AEL service availability, then queue up inside the designated halls/ arenas and wait to be further sent to SkyPier Terminal for sea transportation to Central/ Tuen Mun.

8. The routings from AEL Exits to halls/ arenas at AWE are as follows,

Routing from AEL Exit A & B to Halls/ Arenas



(Remarks: Hall 1 & 10 are used for routing illustration.)

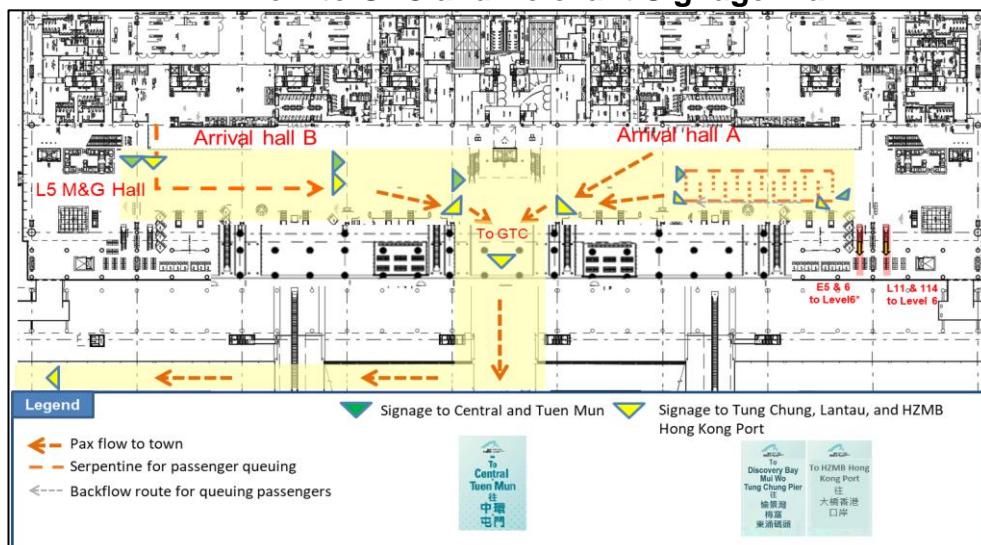
9. Coaches will be deployed by AAHK to carry passengers from the AWE to SkyPier Terminal and it is estimated that 20 coaches will be required.

4.0 Ground Transportation Centre (GTC) Bus Terminus

1. Bus companies shall make available buses for shuttling between the terminus and Tung Chung City.
2. TD will coordinate with franchised bus operators to provide feeder services to Tung Chung Development Pier or Disneyland Resort Pier, the Airport Passenger Terminal Building (PTB) and Tung Chung new town, if appropriate, as far as resources permit, using the buses that are trapped on Lantau Island and Chek Lap Kok.
 - a. Projected passenger flow for the ferry contingency arrangement at GTC/ AWE/ SkyPier Terminal are as per flow diagram above.
 - b. Projected passenger flow from GTC to Tung Chung town centre, Tung Chung Pier and Mui Wo is estimated to be about 340 passengers hourly assuming there would be capacity limits to share use those piers with staff and resident.
 - c. Projected staff demands to Tung Chung are 52,240 daily staff total (one way) as mentioned above.

- d. The above profiles are baseline data only because in a No Land Link situation, these numbers will change from absence of normal land transportation means.
 - e. In a No Land Link situation, airport located companies will be asked to make use of staggered working hours, flexi-hours, work-from-home, and activate company off-CLK Island fallback sites, and other strategies to decrease the number of non-operational staff needing to come out to the airport as well as “flatten out” the spikes in the demand profiles.
3. TD will also maintain the existing feeder franchise bus service between Hong Kong-Zhuhai-Macao Bridge (HZMB) Hong Kong Port and the Airport for passengers travelling to Zhuhai, Macao, or back to Hong Kong In-town via HZMB. It should be noted that passengers shall possess valid travel documents landing Mainland China/ Macao to travel back to Hong Kong In-town via HZMB.
 4. LD shall coordinate with Police and AVSECO on crowd management.
 5. Route information shall be provided at the terminus and regularly updated.
 6. Advisory information shall be given such that air passengers and air crew members should take SkyPier Terminal as much as possible since Tung Chung pier is to be used primarily for staff and members of the Tung Chung/ Lantau community. Air passengers, air crew members, airport staff, and local residents heading to HZMB Hong Kong Port shall also be reminded to possess valid travel documents to Mainland China/ Macao.
 7. Below is a diagram illustrating the operation flow to GTC and relevant signage plan:

Flow to GTC and Relevant Signage Plan



5.0 Police and Crowd Management

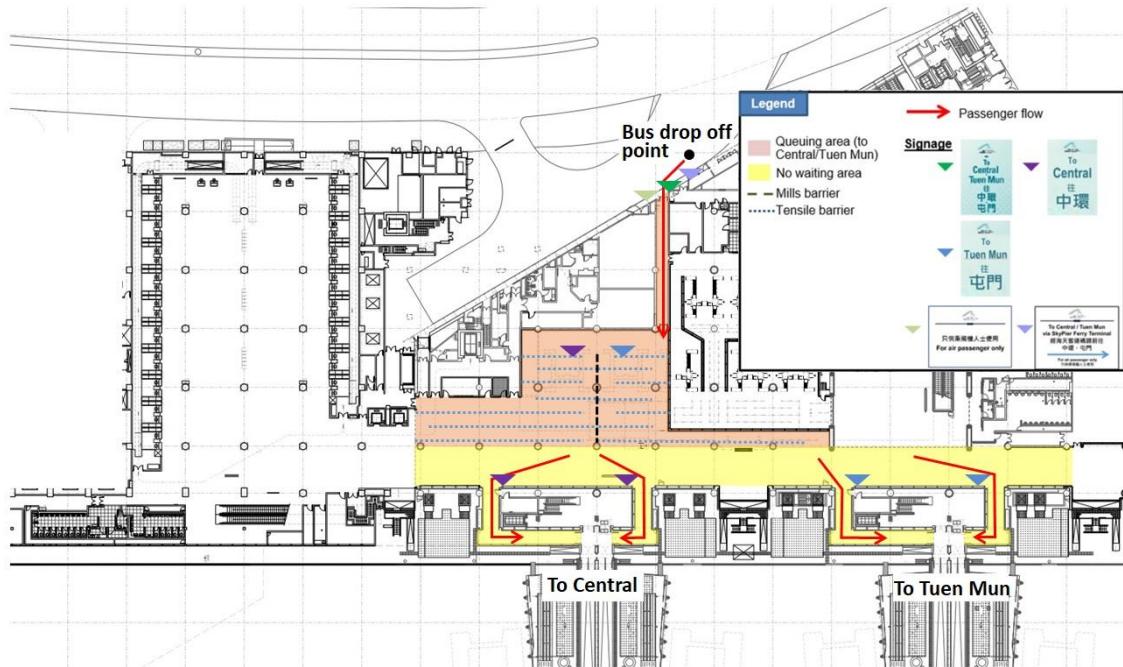
1. The AAHK will be working closely with AVSECO and the Police in crowd management at various places on the CLK Island including:
 - a. T1
 - b. AEL Platform on Level 5
 - c. SkyPier Terminal
 - d. AWE
 - e. GTC
2. TD will need to coordinate with the Police for crowd management at sites outside the purview of AAHK.

6.0 SkyPier Terminal

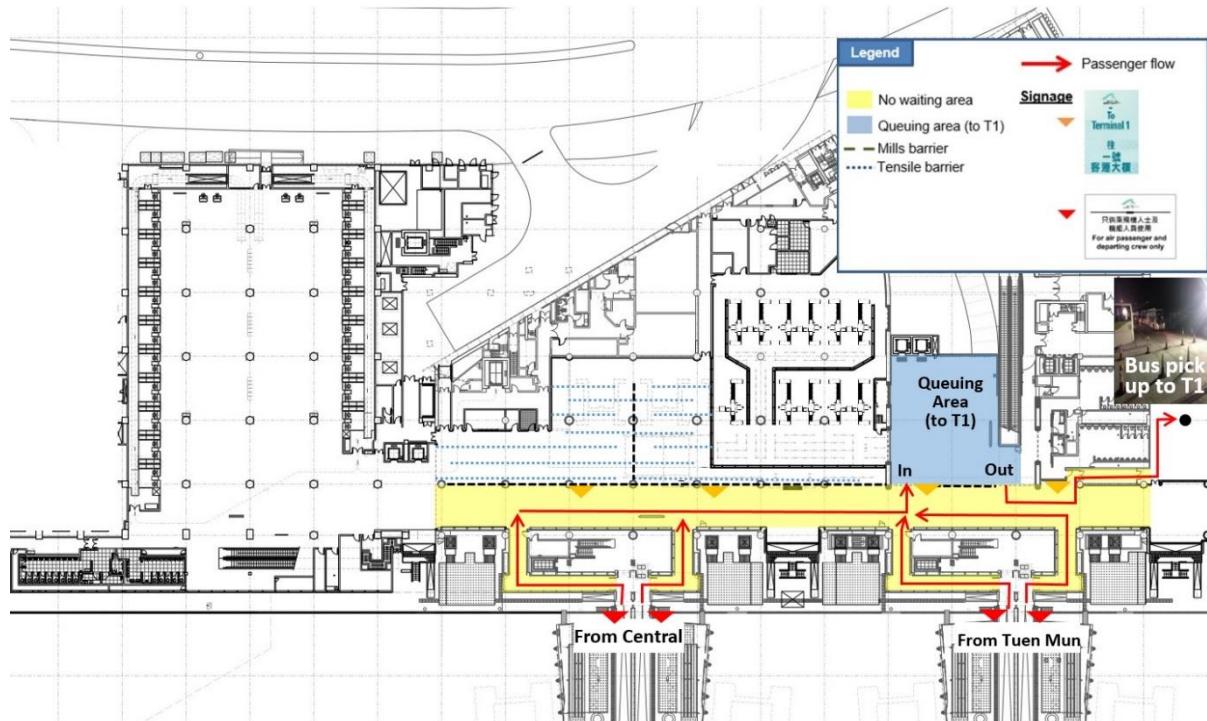
1. SkyPier Terminal will become a domestic ferry pier with passenger access through the SkyPier Terminal controlled by AAHK/ AVSECO to comply with the access control requirements of a Restricted Area (RA).
2. Crowd management and passenger assistance shall be provided to smooth out the loading process.
3. The estimated throughput (outbound from SkyPier Terminal) will be about 325-360 pax/hr for each of the four piers and likewise for inbound to SkyPier Terminal.
4. It is estimated that at least 10 vessels are needed to provide the required capacity.
5. AAHK is working with CKS, Cotai and TurboJET to provide and operate 8 cross-boundary vessels for the service and TD's arrangement with MBTA for another 2 vessels is needed.
6. TD's coordination with local operators such as Sun Ferry and Park Island ferries for additional vessels have following numbers:
 - a. 1 vessel could be provided during peak hours by Tsui Wah Ferry
 - b. 8 vessels could be provided during non-peak hours by Tsui Wah Ferry (1 no.), Discovery Bay Transportation (1 no.), Park Island Transport (1 no.), Sun Ferry (5 nos.) respectively
7. To avoid overcrowding in SkyPier Terminal (estimated holding capacity is around 500 to 1000), flow control from AWE to SkyPier Terminal shall be implemented. Queuing arrangement inside AWE can be provided by AWE whereas the passenger flow into/ out of AWE shall be managed by AAHK.

8. Illustration of SkyPier Terminal Operation Flow to/ from city are as below:

SkyPier Terminal Operation Flow and Signage Plan (To city)



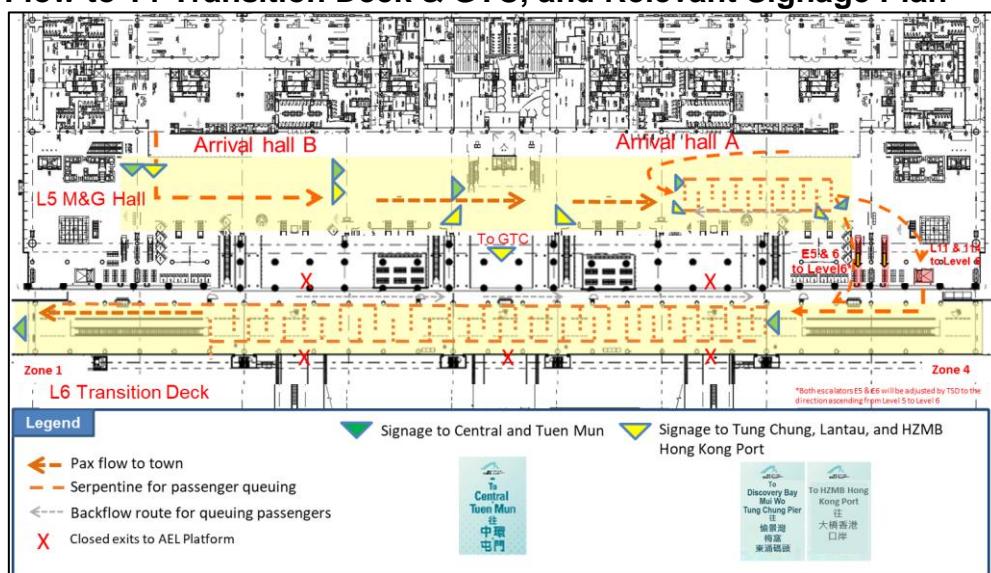
SkyPier Terminal Operation Flow and Signage Plan (From city)



7.0 T1 Meeters and Greeters Hall & T1 Transition Deck

- Crowd management at Arrival Hall Exit A and B for the flow to T1 Transition Deck on Level 6 (primarily for air passengers destined for Central and Tuen Mun) and to GTC bus terminus (primarily for staff, crew members, passengers destined for Tung Chung, other destinations within Lantau Island and HZMB Hong Kong Port) will be in place. Below diagram illustrates operation flow and signage plan at T1 Meeters and Greeters Hall and T1 Transition Deck:

Flow to T1 Transition Deck & GTC, and Relevant Signage Plan

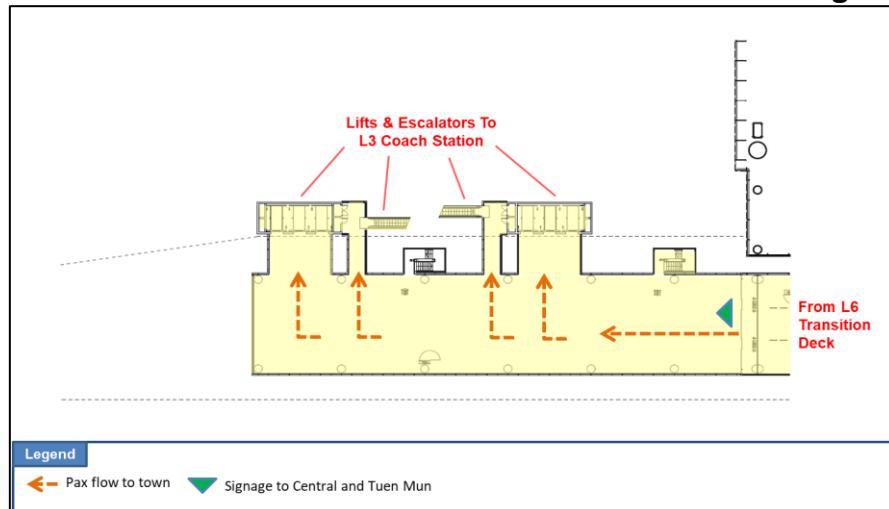


- Public announcement, directional signage and guidance shall be given to passengers.

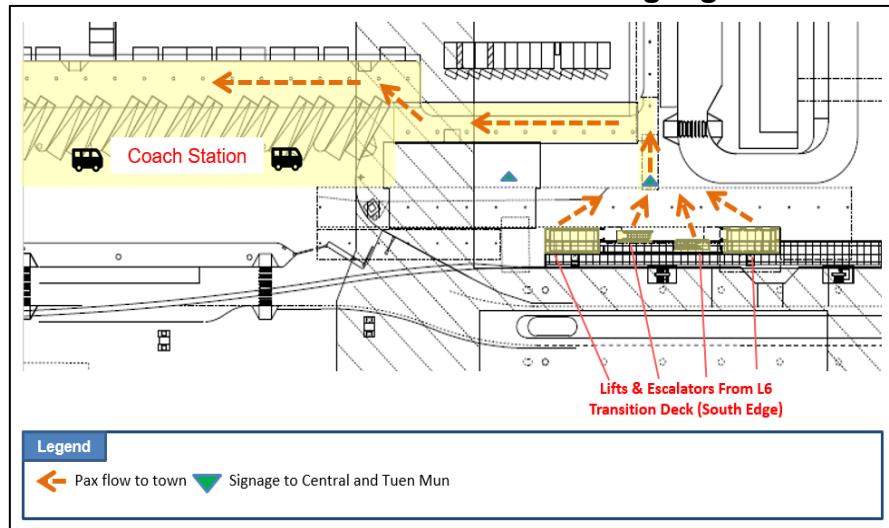
8.0 Coach Station

- Apart from AEL providing shuttle service between T1 and AWE, coaches will be deployed at the Coach Station for the transport of arrival passengers from T1 to AWE. It is estimated about 20 coaches are needed in order to maintain a smooth flow of passengers.
- Crowd management and traffic management at the Coach Station will be provided to ensure smooth operations. Below diagram illustrated operation flow and signage plan at Coach Station:

Flow from T1 Transition Deck to T1 Coach Station & Relevant Signage Plan



Flow at T1 Coach Station & Relevant Signage Plan



9.0 Tung Chung City

1. Traffic and crowd management shall be provided at Tung Chung by Police for handling the influx of passengers.
2. TD will coordinate with franchised bus operators to strengthen the existing bus services between ferry piers at Mui Wo/ Discovery Bay and the Airport/ Tung Chung as far as resources permit.

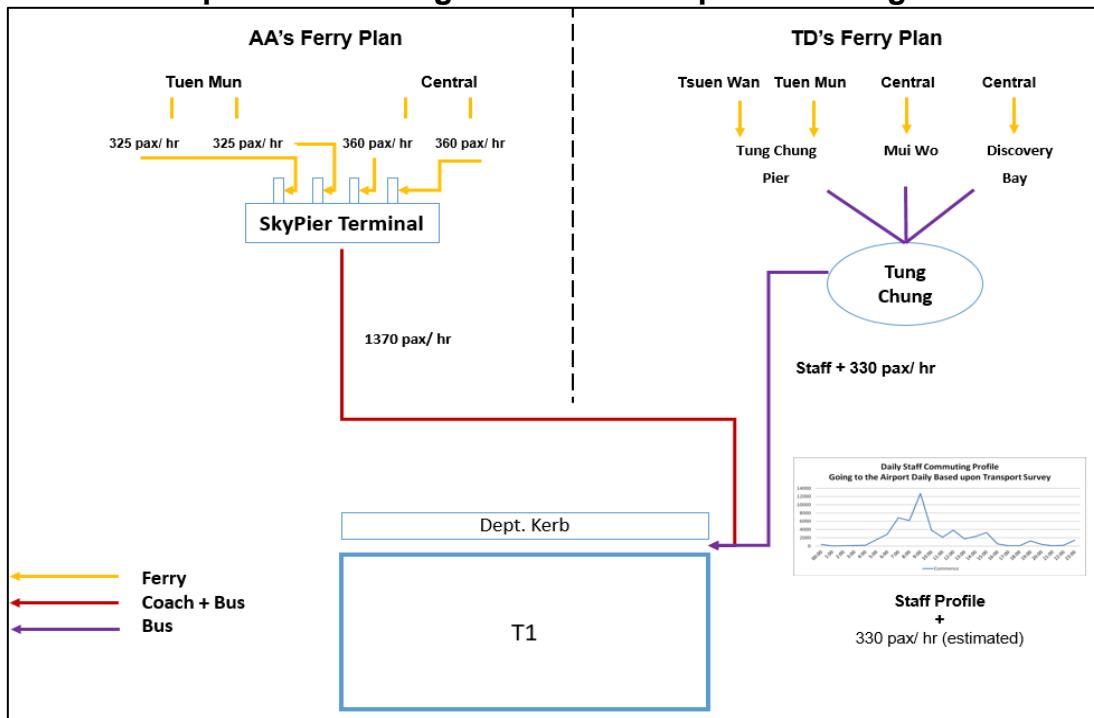
10.0 Departure Passengers/ Staff Coming Onto-Airport Island Flow

1. TD will coordinate with franchised bus operators to provide feeder services to Tung Chung Development Pier or Disneyland Resort Pier, the Airport Passenger Terminal Building and Tung Chung new town, if appropriate, as

far as resources permit, using the buses that are trapped on Lantau Island and Chek Lap Kok.

2. From SkyPier Terminal, coaches will be deployed to take passengers exiting SkyPier Terminal direct to T1 Departures Kerb. It is estimated about 20 coaches are required to be arranged by AAHK for this shuttle.
3. Flow diagram showing the Passenger / Staff Onto-Airport Island flow:

Departure Passengers/ Staff On-Airport Handling



H. Land Transport Plan

1.0 To and From SkyPier Terminal

1. Coaches will be used for shuttling passengers between “Coach Station and AWE”, “AWE and SkyPier Terminal”, and “SkyPier Terminal and T1 Departures Kerb”.
2. AEL can also transfer passengers from T1 to AWE.
3. These shuttles to be coordinated by AAHK.

2.0 To and From Tung Chung, Mui Wo & Discovery Bay piers

1. TD will coordinate with franchised bus operators to strengthen the existing bus services between ferry piers at Mui Wo/ Discovery Bay and the Airport/ Tung Chung as far as resources permit.
2. Details can be found in the TD Action Checklist on Emergency Public Passenger Transport Services in case of No Land Link to/ from Lantau Island and Chek Lap Kok as attached in Exhibit 3.

3.0 To and From HZMB Hong Kong Port

1. TD will coordinate with franchised bus operators to maintain the existing bus services between HZMB Hong Kong Port and the Airport.

Appendix B - Airport Provisions and Cargo Alternative Routing Plan

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2.0 Introduction

1. The Government established in 1998 contingency strategies in dealing with major traffic disruption on the land links serving the North Lantau and the airport under the following 3 scenarios :
 - a. Major rail disruption with normal road access
 - b. Major road disruption with rail in operation
 - c. Total closure of land links (“No Land Link”)
2. Based upon the government strategies established, the Transport Department (TD) has issued “Action Checklist on Emergency Transport Arrangements for Land Links to/ from North-West Lantau and the Airport” and “Action Checklist on Emergency Public Passenger Transport Services in case of No Land Link to/from Lantau Island and Chek Lap Kok (CLK)”.
3. This HKIA Airport Provisions and Cargo Alternative Routing Plan (“Alternative Routing Plan”) is to tie in with the TD’s procedures and largely relates to the management and control of traffic and transport on public roads within the purview of the Airport Authority Hong Kong (AAHK).
4. In addition, this Alternative Routing Plan works to comply with the findings and recommendations of the government appointed Task Force to study and enhance emergency transport coordination and its published “Report of the Task Force on Emergency Transport Coordination, June 2005”, in particular, a coordinated crisis management mechanism whereby responding organizations fall under the direction and coordination of Transport and Logistics Bureau (TLB) led High Level Command Centre (HLCC) and Police’s Regional Command and Control Centre (RCCC).

3.0 Objectives

1. The HKIA communication, coordination and operating processes needed are laid down by which airport provisions (e.g. supplies for catering and convenience store outlets located in passenger terminal buildings as well as supplies for air caterers) and air cargo can be transported into and off HKIA under the No Land Link (NLL) scenario.
2. The freight forwarders, logistics services providers and trucking companies i.e. truckers may liaise independently with CKS Tuen Mun Terminal (CKS-TMT) or other barge services providers to procure barge services to transport cargo between CKS Tuen Mun Terminal (CKS-TMT) and South East Quay (SEQ) at HKIA which are independent of the plans contained herein.

4.0 Projected Recovery Capacity

1. The following are critical planning factors to the contingency plans :
 - a. Full support from Chu Kong Shipping Ltd. (CKS) has been confirmed to provide their terminal services at its Tuen Mun facility provided that CKS can timely re-schedule their normal commercial services to other landing points in town and/or River Trade Terminal (RTT).
 - b. Full deployment of the potentially available vessels is assumed.
 - c. On the licensing of CKS vessels under the No Land Link, Marine Department (MD) agreed to come up with the best way to deal with the matter when the situation arises, in an expeditious manner having regard to safety and other pertinent factors, to facilitate CKS's vessels to provide the said cargo services.
 - d. Full deployment of the potential handling equipments, including sea/air containers, tractors is assumed.
 - e. Cargo handling capacity analysis (see Annex A) is only a rough estimation as there could be many other factors, like shippers' behavior, which would have significant impact on the actual cargo demands e.g. freight forwarders might divert their cargoes to other airports or using other alternative mode (sea-air) in case of a prolonged road disruption.
 - f. Other key factors include the availability of vessels/trucks at the time of emergency.
 - g. The actual availability (or time of availability) for different types of barges / vessels during emergency could have direct impact on the vessels schedule and cargo capacity per vessel, affecting the overall projected cargo recovery capacity.
 - h. The capacity would be further reduced if the vessels are required to be deployed for transporting other airport provisions, in addition to those for air caterers, catering and convenience stores outlets of the passenger terminals.
2. If the above planning factors are fulfilled, then the projected cargo-only (excluding airport provisions) export recovery capacities would be about 51%.
3. The following table summarizes the cargo-only (excluding airport provisions) recovery capacity.

Cargo vessels for No Land Link				
Vehicular Ferry (1) (Kwun Tong-Mui Wo) (tonne)	Flat-top Barge (2) (CKS TMT to South East Quay at HKIA) (tonne)	Total Capacity (1) + (2)	% Capacity / Demand (average daily export demand in 2019 = 6,823 tonnes)	% Capacity / Demand (average daily import demand in 2019 = 2,724 tonnes)
324 (9.3%)	3,168 (90.7%)	3,492	51.17%	128.19%

As there is height constraint for vehicles using vehicular ferry and restriction on trucks using the Tung Chung Road, the cargo industry has reviewed that the vehicular ferry would not be suitable for transporting palletized air cargo. Nevertheless, the vehicular ferry could be maintained as an option for transporting smaller volume of airport supplies and provisions as well as an option for the industry to deliver a small volume of bulk air cargo.

4. Airport provisions have an estimated daily average of 154 tonnes; their inclusion into the above figures give approximate projected recovery capacities of about 48.9% for export cargo.
5. The estimated daily import cargo demand is about 2,724 tonnes (with reference to 2019 cargo throughout at HKIA) whilst the projected daily recovery capacity per direction is about 3,492 tonnes, hence it is expected that the daily import cargo demands can be completely fulfilled by projected recovery capacity.

5.0 Modes of Alternate Transportation

There are two basic modes of transporting airport provisions and air cargo under the No Land Link:

1. Vehicular ferry between Kwun Tong and Mui Wo vehicular ferry piers.
2. Flat top barge roll-on/roll-off operation between CKS Tuen Mun Terminal and South East Quay at HKIA.

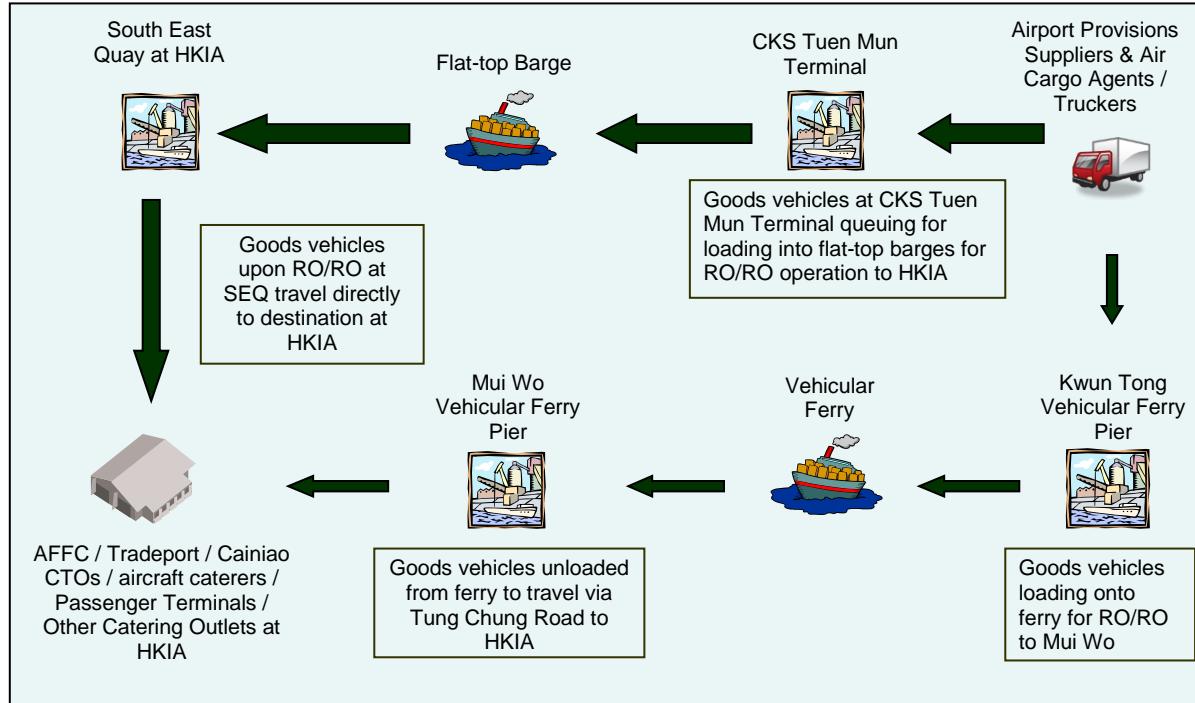
6.0 Operational Process: Vehicular Ferry

1. Upon activation of the No Land Link contingency plans, the TLB-led High Level Command Centre (HLCC), at its discretion and direction, will mobilize the emergency service between Kwun Tong and Mui Wo vehicular ferry piers.
2. The High Level Command Centre will publicize the sailing schedules and keep transportation industry stakeholders, including Hong Kong Association of Freight Forwarding and Logistics Ltd. (HAFFA) and Hong Kong Association of Aircargo Truckers Ltd. (HAAT) informed.
3. The High Level Command Centre will oversee coordination with the Police to facilitate movement of goods vehicles to and from Mui Wo and Tung Chung along the Tung Chung Road where special vehicle permits are needed.
4. AAHK will alert all on-airport parties.

7.0 Operational Process: Flat-Top Barge

1. Any event resulting in a No Land Link situation will bring about the activation of the Airport Emergency Centre (AEC).

2. The High Level Command Centre will activate the Alternative Routing Plan in consultation with AAHK on the projected time duration of No Land Link.
3. Costs of the Emergency Barging Services will be settled by users.
4. The High Level Command Centre will activate the CKS Tuen Mun Terminal and mobilize flat-top barges with barging companies while AAHK will activate South East Quay (SEQ) as landing pier at HKIA under the No Land Link.
5. AAHK Aviation Logistics Department (ALD) will coordinate within the airport cargo community on the activation of various cargo business continuity plans. AAHK Land, Property & Aviation Franchises Department (LPAF) will coordinate with aircraft caterers on the activation of contingency plans to maintain aircraft catering services. AAHK Retail and Advertising Department (RAD) will coordinate with airport retailers on the contingency plans to maintain airport provisions.
6. The Alternative Routing Plan will involve combination of two types of vessels :
 - a. Flat-top barge
 - b. Vehicular ferry
7. Flat-top barges are for roll-on/roll-off (RO/RO) vehicle operations:
 - a. It can carry 10-12 goods vehicles per vessel.
 - b. With a speed of around 4 knots.
 - c. Aircraft caterers can also make use of the flat-top barge for the supply of airport provisions in full-loaded trucks of their own or suppliers.
 - d. Approximately 10 flat top barge licensed in Hong Kong (as of 2010).
8. Vehicular ferries are for roll-on/roll-off (RO/RO) vehicle operations similar to but of slightly lower capacity than flat top barges:
 - a. It can carry about 8-10 heavy goods vehicles per vessel (for vehicles of about 11m in length).
 - b. With a speed of around 10 knots.
 - c. Unlike flat-top barge, it requires the piers with designated ramp facility (e.g. Mui Wo, North Point, Kwun Tong) to facilitate the roll-on/roll-off (RO/RO) operation.
9. Actual deployment under the Alternative Routing Plan will consist of a combination of the aforementioned two types of vessels as there are no guarantee as to how many of which type of vessels may be available on any given day; however, it is fairly certain that availability of vehicular ferries and flat-top barges are in limited supply.
10. The following process map depicts a high-level flow of the airport provisions and air cargo going to the Airport. Getting off the Airport is the reverse process.



11. Upon notification by AEC on the activation of Alternate Routing Plan,
 - a. ALD will liaise with AEC-Cargo team and HAAT to prepare for the operations at the airport.
 - b. LPAF will liaise with aircraft caterers to prepare for the operations at the airport.
 - c. RAD will liaise with retailers to prepare for the operations at the airport.
 - d. Corporate Affairs Department (CAF) will assist with the issue of press releases and general information dissemination and coordination with TD and Government's Information Services Department (ISD).
 - e. Police and Landside Department (LD) will assist with landside traffic flows, etc.
12. Transporting air cargo to the airport :
 - a. Upon activation of the Alternate Routing Plan, freight forwarders or their appointed truckers and suppliers will drive their trucks carrying air cargo to CKS Tuen Mun Terminal.
 - b. Trucks with cargo will queue at CKS Tuen Mun Terminal for loading onto flat-top barges for traveling to HKIA
 - c. Flat top barges will travel from CKS Tuen Mun Terminal to South East Quay at HKIA (for about 60-70mins).
 - d. Upon arrival of the flat-top barge at South East Quay at HKIA, trucks will drive off barge to deliver cargo directly to Cargo Terminal Operators (CTOs)/ Airport Freight Forwarding Centre (AFFC)/ Tradeport/ Cainiao Smart Gateway (Cainiao) for further cargo processing.
13. Transporting air cargo/returning empty trucks from the airport to town :
 - a. Upon activation of the Alternate Routing Plan, freight forwarders or their appointed truckers will register at their staging locations and be called

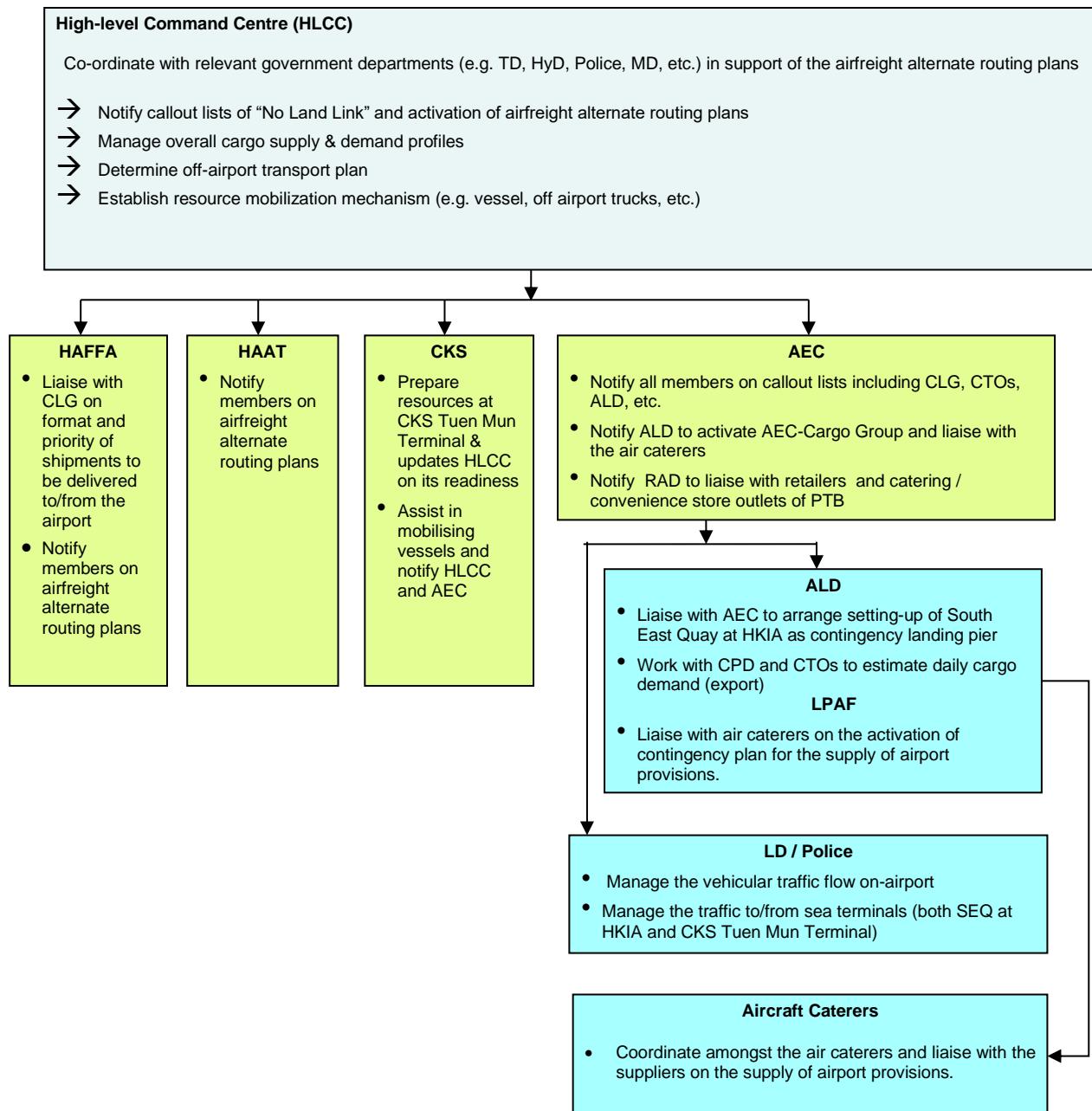
- forward to drive their trucks carrying air cargo to South East Quay at HKIA from CTOs/ AFFC/ Tradeport/ Cainiao.
- b. Trucks with cargo/returning empty trucks will queue at South East Quay for loading onto flat-top barges for traveling to CKS Tuen Mun Terminal.
 - c. Upon arrival of the flat top barge at CKS Tuen Mun Terminal, trucks will drive off the barge to deliver cargo to their warehouses or customers.
14. Barging operations by flat-top barges for the airport provisions will follow the same process as the air cargo; AAHK's ALD, LPAF and RAD will coordinate amongst the aircraft caterers and catering / convenience stores outlets of the passenger terminals respectively.
15. For roll-on/roll-off (RO/RO) operations, the “call forward” mechanism will be adopted for all types of vehicles, be it airport provisions or air cargo vehicles, at the vehicle loading piers i.e. South East Quay at HKIA. ALD, LPAF and RAD will liaise and consolidate the vehicle list at AEC for each flat-top barge travelling from South East Quay to CKS Tuen Mun Terminal. “First-come-first-serve” loading priority will remain adopted at CKS Terminal at Tuen Mun.
16. In the event of serious congestions and such other issues at the vehicle loading piers, representatives of Government departments, AAHK, Carrier Liaison Group (CLG), HAFFA, HAAT, CTOs, aircraft caterers, catering/convenience stores outlets of passenger terminals and CKS will form a working group under the High Level Command Centre to review the situation and decide on appropriate remedial actions to facilitate a smooth flow of airport provisions and air cargo to and from the airport under the No Land Link.

8.0 Trigger Mechanism and Mobilization

1. Contingency measures should be triggered if the prolonged disruption of North Lantau Highway (NLH) is confirmed to be of greater than 24-48 hours in duration.
2. Decision to activate the plan will be undertaken by TLB/AAHK with the advice of the parties concerned.
 - a. Permanent Secretary for Transport & Logistics (PSTL) of TLB will lead the High Level Command Centre for No Land Link to Airport for this purpose.
 - b. Its core membership would include representatives from AAHK, TD and MD.
 - c. Its key role is to give command in order to mobilise necessary resources.
3. Upon successful solicitation of support from CKS and barging companies, it is estimated that it would take at least about 6 hours to mobilize the barging services between CKS Tuen Mun Terminal and South East Quay.

9.0 Roles and Responsibilities

1. Overview showing proposed relationship between various responding parties.



2. High Level Command Centre

- a. The challenge lies first in the mobilization of transport services and facilities for the carriage of what would become marine cargoes that require both vessels and landing facilities as “downtown” locations and second in the organization of these resources for the logistics sector that requires emergency freight services to the airport.
 - i. The operation is complex with the participation of many players over different interfaces.
 - ii. This requires careful prior planning and engagement of service providers and other stakeholders.
 - iii. While the essential operating details are being fleshed out and refined, the High Level Command Centre with the support of all parties concerned will *pro tempore* coordinate and deal with these aspects of an emergency situation as they arise.
- b. Steer, coordinate and monitor traffic and transport situation and implement traffic diversion plan in the event of natural disaster emergencies viz. the prolonged closure of North Lantau Highway (NLH).
- c. Undertake a proactive co-ordination role with all associated government departments which include but not limited to the following units under the No Land Link situation :
 - i. Highways Department (HyD)
 - ii. Drainage Services Department (DSD)
 - iii. Police
 - iv. Marine Department (MD)
 - v. Information Services Department (ISD)
- d. When necessary, make available senior officers of other supporting departments to station at the High Level Command Centre to facilitate decision making process.
- e. Establish an efficient notification mechanism within each department for senior officers to deploy resources, monitor the developments and give timely directives for the transport / diversion plan to and from the airport.
- f. Enhance the judgement and assessment by officers at the scene, and make them aware of the macro-picture when handling the land link closure incident.
- g. Coordinate all off-airport resources arrangement and define prior resource mobilization plan in addition to coordination with the Hong Kong Cargo Vessel Traders' Association as well as with CKS to provide contingency transportation of goods trucks between CKS Tuen Mun Terminal and the South East Quay at the airport.
- h. Establish a resource mobilization mechanism with the Hong Kong Cargo Vessel Traders' Association to ensure timely pooling of vessels and equipment under No Land Link scenario – process similar to the

mechanism currently operating between TD and the Hong Kong & Kowloon Motor Boats & Tug Boats Association (MBTA) on passenger ferry mobilization under an emergency.

- i. Disseminate information on land link disruption status, associated transport arrangements to and from airport and latest development to AAHK's AEC, and off-airport parties i.e. Hong Kong Association of Freight Forwarding and Logistics Ltd (HAFFA), Hong Kong Association of Air Truckers Ltd (HAAT) and CKS Tuen Mun Terminal.
 - j. Closely monitor and co-ordinate on the recovery and contingency measures, develop the emergency transport arrangements with the support from the AAHK.
 - k. Coordinate with TD, Police, ISD and other involved government departments to ensure consistency of information to be disseminated to the mass media and the public.
 - l. Advise on the duration for recovery of NLH.
 - m. Upon completion of the clearing and repairing blocked NLH, report on the recovery of NLH.
3. Land, Property & Aviation Franchises Department (LPAF)
- a. Liaise with AEC and Corporate Planning Department (CPD) to estimate the daily demand profile for the High Level Command Centre to determine the requirement of airport provisions/cargo vessel sailing frequencies.
 - b. Participate at AEC to facilitate collaborative decision making for all on-airport and cargo related resources arrangement which include but not limited to the setting up of South East Quay at HKIA as the contingency landing pier.
 - c. Upon notification from AEC on the High Level Command Centre's updates of all off-airport transport arrangement and traffic management plan, notify the aircraft caterers.
 - d. Liaise with the aircraft caterers on the activation of contingency plans under the No Land Link scenario and keep AEC posted of the development.
 - e. Assist in critical data collection.
4. Aircraft Caterers
- a. Coordinate amongst themselves to consolidate requirements for the supply of airport provisions.
 - b. Liaise with suppliers on the supply of airport provisions.

5. Aviation Logistics Department (ALD)
 - a. Activate AEC – Cargo Group.
 - b. Liaise with AEC and CPD to estimate the daily demand profile for the High Level Command Centre to determine the requirement of airport provisions/cargo vessel sailing frequencies.
 - c. Participate at AEC to facilitate collaborative decision making for all on-airport and cargo related resources arrangement which include but not limited to the setting up of South East Quay at HKIA as the contingency landing pier.
 - d. Upon notification from AEC on the High Level Command Centre's updates of all off-airport transport arrangement and traffic management plan, notify AEC – Cargo Group.
 - e. Assist in critical data collection.
 - f. Keep event log and actions taken on any special issues and matters arising during the AEC – Cargo Group meeting.
6. Airport Emergency Centre (AEC)
 - a. Act as the on-airport command centre to ensure on-airport operations.
 - b. Upon notification from the High Level Command Centre on activation of the Alternate Routing Plan, liaise with ALD and LPAF to activate AEC-Cargo Group and liaise with RAD on the replenishment of supplies for passenger terminals' catering and convenience outlets.
 - c. Timely communicate with ALD, LPAF, all on-airport cargo communities (i.e. AEC – Cargo Group Members, AFFC, Tradeport, Cainiao) and RAD on the updated notifications / instructions from the High Level Command Centre.
 - d. Deploy necessary on-airport resources [e.g. Airfield Department (AD), Landside Department (LD)] to facilitate the transportation arrangement of the Alternate Routing Plan.
 - e. Facilitate decision making with ALD, LPAF and the AEC-Cargo Group on key issues / processes including but not limited to the review the utilisation of dollies and ensure effective dolly management.
 - f. Ensure effective on-airport landside traffic management.
 - g. If required, arrange temporary staging area for goods vehicles to await for flat-top barges.
7. Airfield Department (AD)
 - a. Monitor the utilization of dollies and Ramp Handling Operator (RHO) operations.

- b. Liaise with AEC to manage the dolly deployment.
 - c. Keep record log of events and actions taken on airside traffic management as appropriate.
8. Carriers Liaison Group (CLG)
- a. Act as Deputy Chairperson of AEC – Cargo Group and chairperson of respective Contingency Response Centre (CRC).
 - b. Communicate with each CRC chairman to ensure effective resource management within respective CTO to handle the cargo demand.
 - c. Review priority and format of shipments to be delivered to/from the airport and liaise with their forwarding agents/HAFFA.
 - d. Timely communication with other AEC – Cargo Group members, ALD, CRC chairman of respective CTO on the latest incident developments and mitigation measures including but not limited to :
 - i. Temporary airside dolly management plan.
 - ii. On-CLK Island truck availability for cargo transfer between CTOs, AFFC, etc.
 - e. Upon notification of the High Level Command Centre on the standing down of the Alternate Routing Plan, timely disseminate information to its members.
9. Cargo Terminal Operators (CTOs)
- a. A CTO representative to participate at AEC to disseminate information to all CTOs.
 - b. Each CTO to timely provide the daily forecast of the cargo profile (i.e. anticipated volume) and report this to AEC-Cargo Group.
 - c. As a key member of the AEC – Cargo Group, each CTO to provide necessary resources to meet its cargo demand include but not limited to the followings :
 - i. Truck Docks
 - ii. Warehouse space for handling bulk goods
 - iii. Manpower
 - iv. Forklifts
 - v. Dolly
 - d. Each CTO to update its latest inventory and utilisation of critical resources to AEC-Cargo Group including but not limited to the followings :
 - i. Truck Docks
 - ii. Warehouse space for handling bulk goods
 - iii. Manpower
 - iv. Forklifts
 - v. Dolly

- e. And, review the need for :
 - i. Temporary airside dolly staging and management plan
 - ii. Temporary contingency build-up area at the landside
 - iii. On-CLK Island truck availability for cargo transfer between CTOs, AFFC, etc.
10. Hong Kong Association of Aircargo Truckers Ltd. (HAAT)
- a. Upon notification of the High Level Command Centre on the activation of the Alternate Routing Plan, timely disseminate information to its members.
 - b. Maintain a close communication with the High Level Command Centre on the transportation arrangement plan, loading points for loaded trucks and bulk cargo (e.g. CKS Tuen Mun Terminal) and timely notify its members on the High Level Command Centre's updates.
 - c. Upon notification of the High Level Command Centre on the standing down of the Alternate Routing Plan, timely disseminate information to its members.
 - d. Review the process and advise enhancement on the contingency plan at the post-incident critique meeting.
 - e. Representing the interests of the air cargo truckers, communicate their operational concerns on resources / infrastructure arrangement to the High Level Command Centre/ AAHK-AEC to enhance the contingency plan.
11. Hong Kong Association of Freight Forwarding and Logistics Ltd. (HAFFA)
- a. Upon notification of the High Level Command Centre on the activation of the Alternate Routing Plan, timely disseminate information to its members.
 - b. Maintain a close communication with the High Level Command Centre on the transportation arrangement plan, loading points for loaded trucks and bulk cargo (e.g. CKS Tuen Mun Terminal) and timely notify its members on the High Level Command Centre's updates on the sailing schedule of barges between CKS Tuen Mun Terminal and South East Quay at HKIA.
 - c. Upon notification of the High Level Command Centre on the stood down of the Alternate Routing Plan, timely disseminate information to its members.
 - d. Representing the interests of the freight forwarders, communicate their operational concerns on resources / infrastructure arrangement to the High Level Command Centre to enhance the contingency plans.
 - e. Liaise with their airlines to review priority and format of shipments to be delivered to/from the airport and notify AEC.

- f. For outbound palletised cargo using landing barge, the agents are to arrange their trucks with palletised cargo to arrive at CKS Tuen Mun Terminal in accordance with the assigned schedule.
12. Marine Department (MD)
- a. Work with CKS Tuen Mun Terminal and vessels/barges operators to ensure the vessel operations conform to applicable marine regulations and safety requirements.
 - b. Advise the industries for any technical requirements on marine operational matter.
13. Retail & Advertisement Department (RAD)
- a. Send departmental staff to man the AEC as its representative.
 - b. Alert all relevant business partners on the activation of barging plans.
 - c. Keep partners updated on barge sailing schedules.
 - d. Coordinate on extraordinary issues between AEC and relevant parties.
14. Ramp Handling Operators (RHOs)
- a. Act as a member of the AEC-Cargo Group.
 - b. Update its situation and performance in the provision of air cargo services (e.g. units' intake time, outbound units' hand-over time, etc.).
 - c. Co-ordinate, mobilise and implement contingency measures as agreed at the AEC – Cargo Group.
15. Chu Kong Shipping Ltd. (CKS)
- a. Upon the activation of the Alternate Routing Plan, closely communicate with the High Level Command Centre and AEC on resources availability (e.g. warehouse space, number of berthing positions) for the deployed barges.
 - b. Liaise with the High Level Command Centre and work out the sailing schedule of the flat-top barges at CKS Tuen Mun Terminal.
 - c. Facilitate the Roll-On/Roll-Off of trucks to/from landing barge at CKS Tuen Mun Terminal.
 - d. Liaise with Police on the traffic management at its vicinity and neighboring area.
 - e. Escalate major operation issues (if any) to the High Level Command Centre for central planning.

- f. Communicate their operational concerns on resources / infrastructure arrangement to the High Level Command Centre for follow up actions to enhance the contingency plan.
16. Landside Department (LD)
- a. Liaise with Police to ensure landside traffic management on-airport.
 - b. Keep record log of events and actions taken on landside traffic management.

10.0 Stand-down

Stand-down process will be the reverse of the activation process.

11.0 Vehicular Ferry Operational Parameters

1. Working assumptions :
 - a. Able to mobilize three vehicle ferries.
 - b. The frequency of the vehicular ferry is maintained at 70 minutes.
 - c. Mui Wo Pier and Kwun Tong Pier, each with one vehicular ferry berth, will act as the 2 terminus for the vehicular ferry service.
 - d. No oversized goods vehicles to use the vehicular ferries (height restriction of goods vehicle is 3.5m).
 - e. Movements of goods vehicles on the Tung Chung Road between Mui Wo and Tung Chung to be facilitated by TD and Police (maximum gross weight of a loaded truck is 24 tonnes and not to exceed 11m in length).
2. Basic characteristics of the vehicular ferries :

	Vehicular Ferry
Inventory in HK (as of March 2010)	5
Available in HK (as of March 2010)	3
Operation mode	Roll-On/Roll-Off
Capacity per single trip	8 – 10 vehicles
Vessel carrying capacity	~48 tonnes
Total time for one single trip (including vehicle loading/unloading time)	~2 hrs
Total time for one return trip (including vehicle loading/unloading time)	~4 hrs

3. Operational flows
 - a. Mui Wo :
 - i. When the vehicular ferry arrives at the Mui Wo Pier, the trucks (with export cargo) will roll off the ferry.

- ii. Once all the trucks finish the roll-off operation, the trucks (with import cargo) will roll on the ramp of the vehicular ferry and the vessel will depart to Kwun Tong Pier.
- b. Kwun Tong :
 - i. When the vehicular ferry arrives at the Kwun Tong Pier, the trucks (with import cargo) will roll off the ramp.
 - ii. Once all the trucks finish the roll-off operation, the trucks (with export cargo) will roll on the ramp of the vehicular ferry and the vessel will depart to Mui Wo Pier.
- 4. Sample of the Proposed Vehicular Ferry Sailing Schedule is depicted in Annex A – Attachment 1 for references only.

12.0 CKS Tuen Mun Terminal (CKS-TMT) and South East Quay (SEQ) at HKIA Operational Parameters

- 1. Working assumptions :
 - a. There are at least two berthing positions available at CKS Tuen Mun Terminal for concurrent roll-on/roll-off (RO/RO) operations.
 - b. South East Quay has at least two berths for the two flat-top barges to undertake their RO/RO operations simultaneously.
- 2. Operational flows : Flat top barges
 - a. The frequency of the flat-top barge is maintained at 30 minutes for the assumed availability of 6 flat-top barges.
 - b. The flat-top barge would handle both import and export cargo.
 - c. When the flat-top barge arrives at CKS Tuen Mun Terminal from South East Quay at HKIA, the trucks (with import cargo) will roll off the ramp.
 - d. Once all the trucks finish the roll-off operation, the trucks (with export cargo) will roll on the ramp of the flat-top barge and the vessel will depart to South East Quay at HKIA.
- 3. Example of the Proposed Flat-Top Barge Sailing Schedule
 - a. An example of the proposed flat-top barge sailing schedule is depicted in Annex A – Attachment 1 for reference only.
 - b. The actual schedule would be subject to the availability of the barges, CKS Tuen Mun Terminal, the weather and sea voyage conditions and cruising times between the South East Quay at HKIA and CKS Tuen Mun Terminal.

- c. Flat-top barge (L1) will berth at Berth 1 at hour 0000 and start the roll-on-roll-off operation.
- d. After all the trucks have been rolled on the flat-top barge, it will depart to South East Quay at HKIA.
- e. Assume the round-trip time is about 3 hours, including the berthing time, steaming time and the roll-on-roll-off operation time.
- f. L1 will sail back to CKS Tuen Mun Terminal Berth 1 at hour 0300 and start the roll-on-roll-off operation again.
- g. For L4 will berth at Berth 2 at hour 0000 (same time with L1) and start the roll-on-roll-off operation.
- h. L4 will sail back to CKS Tuen Mun Terminal Berth 1 at hour 0300 and start the roll-on-roll-off operation again.

Annex A : Cargo Handling Capacity Analysis

Objective

1. The objective of this analysis is to estimate the cargo handling capacity of the two potential types of vessels (i.e. Vehicular Ferry and Flat-Top Barge) to provide alternative transportation of goods under the land link disruption between non-Lantau areas and the Airport.

Summary of Analysis

2. Assuming all types of trucks can be used on the Tung Chung Road, the total maximum capacity of two types of vessels is estimated to be about 3,492 tonnes which could cater for about 51% of estimated average daily export demand (6,823 tonnes) or 48.9% of estimated average daily export demand if the estimated 154 tonnes of airport provisions are included to share the capacity.

Cargo vessels for No Land Link			
Vehicular Ferry (1) (Kwun Tong-Mui Wo) (tonne)	Flat-top Barge (2) (CKS TMT to South East Quay at HKIA) (tonne)	Total Capacity (1) + (2)	% Capacity / Demand (average daily export demand in 2019 = 6,823 tonnes)
324 (9.3%)	3,168 (90.7%)	3,492	51.17%

Traffic Demand

3. The estimated average daily import and export cargo demand (excluding transhipment) is 2,724 tonnes and 6,823 tonnes based on 2019 HKIA air cargo throughput.

Key Assumptions

4. Assume two types of vessels - vehicular ferry and flat-top barge are available to operate under No Land Link scenario where the vehicular ferry and flat-top barge would provide roll-on/roll-off (RO/RO) of goods vehicles.
5. Due to the shortest steaming distance from the CKS Tuen Mun Terminal to the airport island, all the flat top barges are assumed to depart from CKS Tuen Mun Terminal to HKIA South East Quay (SEQ) or vice versa.
6. Since there is no vehicular ferry facility at CKS Tuen Mun Terminal and HKIA SEQ, vehicular ferry will operate between Kwun Tong Pier and Mui Wo Pier only.

7. A maximum of two vessels can berth concurrently at HKIA SEQ and at CKS Tuen Mun Terminal.
8. There is only 1 berth for the vehicular ferry at Mui Wo Pier.
9. Each truck, using the vehicular ferry, may carry a maximum of 2 tonnes of bulk cargo/goods.

Background Information

10. Based on the above key assumptions, the key characteristics of the three types of vessels are summarized as follows:

	Vehicular Ferry	Flat-Top Barge
Inventory in HK	5	10
Available in HK*	3	6
Operation mode	Roll-On Roll-Off	Roll-On Roll-Off
Capacity per single trip (vehicles)	8 – 10 vehicles	10 – 12 vehicles
Effective cargo capacity per single trip (tonnes)	~18 [@]	~66 [^]
Total time for one single trip (hr) #	2	1.5
Total time for one round trip (hr) #	4	3

*information provided by MD, TD and barging company

[^] rough assumptions: 3 ULDs per vehicle; 2 tonnes per ULD

[@] Maximum 2 tonnes per vehicle on vehicular ferry

including steaming time, berthing time, vehicle loading and unloading time

Designed Schedule by Vessel Types under No Land Link Scenario

11. The designed schedule of the 2 types of vessels are based on the following assumptions:

- a. There are three vehicular ferries (V1-V3) and six regular flat-top barges (L1-L6) available under no land link scenario.
- b. The basic principle of this capacity analysis is to maintain a reasonable departure frequency for the vessels such that the accumulated export cargo could be timely transported to the cargo terminals on the airport island.

- c. It should be noted that the future departure frequency would be subject to other factors including operation cost, operational factors (e.g. tidal impact) and associated commercial arrangements among various parties. Hence, the example given below on the departure frequency and handling capacity are for reference only.

12. The designed schedule of the two types of vessels are summarized as follows:

	<u>Vehicular Ferry</u>	<u>Flat-Top Barge</u>
Frequency (i.e. time between departures)	70 mins	30 mins
No. of Single Trips (2)	V1, V2 & V3 (6 single trips)	L1-L6 (8 single trips)
Assmed Available Total No. of Vehicular Ferry / Flat-top Barge	3	6
Single/Return Trip Times (i.e. Sailing Time + Berthing Time + Vehicle Unloading>Loading Time)	Single Trip Time = 2 hrs Return Trip Time = 4 hrs	Single Trip Time = 1.5 hrs Return Trip Time = 3 hrs
Capacity (in terms of trucks)	9 (each truck carrying 2 tonnes of cargo)	11 (each truck carrying 3 cargo ULDs with 2 tonnes per ULD)
Capacity per Trip (3)	18 tonnes	66 tonnes
Total Daily Capacity (2) * (3)	324 tonnes V1, V2 & V3 ($18 * 6 * 3 = 324$ tonnes)	3,168 tonnes L1 - L6 ($8 * 66 * 6 = 3,168$ tonnes)

Vehicular Ferry

- a. The frequency of the vehicular ferry is maintained at 70 minutes.
- b. Only 1 berth at Mui Wo Pier would be used for the vehicular operation.
- c. The vehicular ferry (V1, V2 & V3) can operate 6 one-way trips on a daily basis and their total daily capacity is estimated to be 324 tonnes.
- d. The vehicular ferry would handle both import and export cargo.

Operation at Mui Wo Pier:

- e. When the vehicular ferry arrives at the Mui Wo Pier, the trucks (with export cargo) will roll off the ramp. Once all the trucks finish the roll-off operation, the trucks (with import cargo) will roll on the ramp of the vehicular ferry and the vessel will depart to Kwun Tong Pier.

Operation at Kwun Tong Pier:

- f. When the vehicular ferry arrives at the Kwun Tong Pier, the trucks (with import cargo) will roll off the ramp. Once all the trucks finish the roll-off operation, the trucks (with export cargo) will roll on the ramp of the vehicular ferry and the vessel will depart to Mui Wo Pier.
- h. The total daily capacity of the vehicular ferry is estimated to be 324 tonnes, assuming each truck may carry a maximum load of 2 tonnes. As there is height constraint for vehicles using vehicular ferry and restriction on trucks using the Tung Chung Road, the cargo industry has reviewed that the vehicular ferry would not be suitable for transporting palletized air cargo. Nevertheless, the vehicular ferry could be maintained as an option for transporting smaller volume of airport supply and provisions as well as an option for industry to deliver a small volume bulk cargo.

Flat-Top Barge

- i. The frequency of the flat-top barge is maintained at 30 minutes for the assumed availability of 6 flat-top barges.
- j. There are 2 berths available at CKS Tuen Mun Terminal. Considering the optimum schedule for the three types of vessels, 2 berths would be solely used for the flat-top barges.
- k. Six flat-top barges (L1 - L6) can operate a maximum of 8 one-way trips on a daily basis and their total daily capacity is estimated to be 3,168 tonnes.
- l. The flat-top barge would handle both import and export cargo.

Operation at South East Quay at HKIA:

- m. When the flat-top barge arrives at South East Quay at HKIA, the trucks (with export cargo) will roll off the ramp. Once all the trucks finish the roll-off operation, the trucks (with import cargo) will roll on the ramp of the flat-top barge and the barge will depart to CKS Tuen Mun Terminal.

Operation at CKS Tuen Mun Terminal:

- n. When the flat-top barge arrives at CKS Tuen Mun Terminal, the trucks (with import cargo) will roll off the ramp. Once all the trucks finish the roll-off operation, the trucks (with export cargo) will roll on the ramp of the flat-top barge and the barge will depart to South East Quay at HKIA.
- o. The total daily capacity of the flat-top barges is 3,168 tonnes, assuming each truck can carry 3 ULDs with average weight of about 2 tonnes per ULD.

Scenario Analysis

13. For the vehicular ferry mode, the trucks would use the Tung Chung Road to transport the cargo to the airport island after rolling-off the vehicular ferry at Mui Wo Pier. Since there is restriction on the height of vehicles using the vehicular ferry and the loading of the truck (5.5 tonnes) using the Tung Chung Road, it is assumed that at most 2 tonnes of bulk cargo could be carried.

14. The capacity analysis of the two types of vessels based on the no. of ULDs that could be carried on each truck is summarized in the table below:

Cargo Vessels for No Land Link			
Vehicular Ferry (1) (Kwun Tong – Mui Wo) (tonne)	Flat-top Barge (2) (South East Quay at HKIA - CKS Tuen Mun Terminal) (tonne)	Total Capacity (1)+(2) (tonne)	Shortage (average daily export demand in 2019 = 6,823 tonnes)
324 (9.3%)	3,168 (90.7%)	3,492	3,331

Summary

15. Based on the capacity analysis with an estimated daily recovery capacity of 3,492 tonnes of cargo per direction, it is expected that

- The plan can fulfill about 51.17% of estimated average daily export demand of 6,823 tonnes (with reference to 2019 cargo throughput at HKIA) or 48.92% of the same demand if estimated 154 tonnes of airport provisions are included to share the capacity.
- The plan can fulfill all (*i.e.* 100%) of estimated average import cargo demand of 2,724 tonnes (with reference to 2019 cargo throughout at HKIA).

16. Although the capacity analysis has indicated that only about 51% of estimated daily export demand could be fulfilled, under a prolonged “no land link” situation, with the potential divergence of export cargo, especially those originated from Mainland China, to other nearby airports, like Shenzhen, Guangzhou or Macao, the actual shortage in the daily capacity (against the reduced daily export cargo demands) is expected to be lower.

17. Annex A - Attachment 1

1. Designed Schedule of Vehicular Ferry

No of trip	Arrival Time	Departure Time	<u>Berth at Kwun Tong Pier</u>		
			V1	V2	V3
1	0000	0030	V1		
	0110	0140		V2	
	0210	0240			V3
2	0400	0430	V1		
	0510	0540		V2	
	0620	0650			V3
3	0800	0830	V1		
	0920	0950		V2	
	1040	1110			V3
4	1200	1230	V1		
	1320	1350		V2	
	1440	1510			V3
5	1600	1630	V1		
	1720	1750		V2	
	1840	1910			V3
6	2000	2030	V1		
	2120	2150		V2	
	2240	2310			V3

No of trip	Arrival Time	Departure Time	<u>Berth at Mui Wo Pier</u>		
			V1	V2	V3
1	0200	0230	V1		
	0310	0340		V2	
	0420	0450			V3
2	0600	0630	V1		
	0710	0740		V2	
	0820	0850			V3
3	1000	1030	V1		
	1110	1140		V2	
	1220	1250			V3
4	1400	1430	V1		
	1510	1540		V2	
	1620	1650			V3
5	1800	1830	V1		
	1910	1940		V2	
	2020	2050			V3
6	2200	2230	V1		
	2310	2340		V2	
	0020	0050			V3

2. Designed Schedule of Flat-Top Barge

No of trip	Arrival Time	Departure Time	Berth 1 at CKS TMT			Berth 2 at CKS TMT		
			L1	L2	L3	L4	L5	L6
1	0000	0030	L1			L4		
	0030	0100		L2			L5	
	0100	0130			L3			L6
2	0300	0330	L1			L4		
	0330	0400		L2			L5	
	0430	0500			L3			L6
3	0600	0630	L1			L4		
	0630	0700		L2			L5	
	0700	0730			L3			L6
4	0900	0930	L1			L4		
	0930	1000		L2			L5	
	1000	1030			L3			L6
5	1200	1230	L1			L4		
	1230	1300		L2			L5	
	1300	1330			L3			L6
6	1500	1530	L1			L4		
	1530	1600		L2			L5	
	1600	1630			L3			L6
7	1800	1830	L1			L4		
	1830	1900		L2			L5	
	1900	1930			L3			L6
8	2100	2130	L1			L4		
	2130	2200		L2			L5	
	2200	2230			L3			L6

No of trip	Arrival Time	Departure Time	Berth 1 at HKIA South East Quay			Berth 2 at HKIA South East Quay		
			L1	L2	L3	L4	L5	L6
1	0130	0200	L1			L4		
	0200	0230		L2			L5	
	0230	0300			L3			L6
2	0430	0500	L1			L4		
	0500	0530		L2			L5	
	0530	0600			L3			L6
3	0730	0750	L1			L4		
	0750	0810		L2			L5	
	0810	0830			L3			L6
4	1030	1100	L1			L4		
	1100	1130		L2			L5	
	1130	1200			L3			L6
5	1330	1400	L1			L4		
	1400	1430		L2			L5	
	1430	1500			L3			L6
6	1630	1700	L1			L4		
	1700	1730		L2			L5	
	1730	1800			L3			L6
7	1930	2000	L1			L4		
	2000	2030		L2			L5	
	2100	2130			L3			L6
8	2230	2300	L1			L4		
	2300	2330		L2			L5	
	2330	2400			L3			L6

Appendix C - Waste Management Plan for CLK Island

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B. Waste Management Demands

1. As a set of contingency planning parameters for waste management, the 2019 waste generation levels for the airport community is about 168 ton/day of landfill-destined wastes and 23 ton/day of recyclable wastes.
2. The following contingency plan will deal with both landfill-destined wastes and recyclable wastes.
3. Landfill-destined waste generation breakdown is as follows :

Aircraft	43 ton/day
Terminals (retailers, F&B outlets, etc.)	23 ton/day
Franchisees (air caterers & other CLK Island tenants)	102 ton/day
Total waste generation	168 ton/day

4. Wastes will be picked-up by specialized garbage trucks daily and transferred to Government's approved waste disposal site(s).
5. One lesson learned from the 07th June 2008 North Lantau Highway closure was that these specialized garbage trucks were not able to carry out their waste pick-up schedules, thus creating a backlog of uncollected waste which at the caterers and other F&B outlets, were beginning to impact upon operational efficiency as well as on hygienic conditions.

C. Non-Recyclable Solid Wastes Management

1. HKIA has an Airside and Landside Waste Station for non-recyclable municipal solid wastes destined for landfills.
2. Wastes from these stations, as well as from CLK Island tenants (e.g. air caterers, etc.) are delivered daily to either the North Lantau Refuse Transfer Station (NLRTS), located at Siu Ho Wan and is accessed by the Cheung Tung Road which runs alongside the North Lantau Highway, or the West New Territories Landfill (WENT), which is located at Tuen Mun and is accessed via the Tuen Mun – Chek Lap Kok Link from the airport.
3. Wastes disposed at the NLRTS will be barged to the WENT at Tuen Mun.

4. Any incident causing the closure of the North Lantau Highway may also close traffic along Cheung Tung Road.
5. When either of North Lantau Highway or Tuen Mun – Chek Lap Kok Link is closed, the alternative routing will be utilised to transfer the waste to NLRTS or WENT.
6. In the event both land links are lost, the non-recyclable solid wastes management plan will be activated in accordance with the following procedures:
 - a. AAHK will instruct the AAHK waste management services contractor to set up a temporary collection and storage site of around 1,000 sq.m. Based on the waste volume in 2019, the site is expected to accommodate wastes up to 5 days. Once either of the land links is reopened, AAHK waste management services contractor will transfer the wastes to WENT/ NLRTS accordingly.
 - b. Where land links are closed for over 5 days, AAHK will instruct the AAHK waste management services contractor to arrange sea transport (return trips by barge) to collect municipal solid waste from the South East Quay to the Nim Shue Wan Pier, and subsequently to off-site waste disposal points which may include NLRTS and/or WENT.
 - c. All wastes must be contained in proper containers (enclosed waste compactors or covered waste skips) and delivered to the South East Quay by waste producers.
 - d. Airport business partners may employ the AAHK waste management services contractor or their own contractor for this sea transportation of waste.
 - e. If they select the AAHK contractor, they shall share the proportioned service charges incurred.
7. Above procedures will accommodate the needs of the majority of airport business partners except for those like CPCs whose waste management system is integrated into their production system; further planning will need to take place to assist these business partners.

D. Recyclable Wastes Management

1. Recyclable wastes are collected daily from AAHK and CLK Island tenants by lorry from recyclers whose vehicles are based off Lantau Island.
2. Loss of land link will result in the accumulation of these wastes.
3. A temporary collection, storage and barging plan will be carried out should there be an extended loss of land link.
4. The recyclable wastes contingency plan shall include the following :
 - a. AAHK will set up a temporary recyclable waste (except food waste) storage area at a vacant land at landside.
 - b. Food waste shall be transported off-site in the same manner as non-recyclable municipal solid wastes.

- | c. AAHK will deploy the AAHK waste management services contractor to transport recyclable waste to the temporary storage area.
- | d. Airport business partners may either transport the recyclable waste to the temporary storage area themselves or employ the AAHK waste management services contractor to do so.

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Appendix D - Vehicle Fuel Contingency Plan for CLK Island

A. Vehicle Fuel Supply & Demand

1. The following table summarizes the available vehicle fuel storage capacities of vehicle fuel filling stations overseen by the Airport Authority Hong Kong.

Locations	Fuel Types	Storage Capacity (in litres)
Airside Filling Stations	Diesel	509,900
	Petrol	34,500
	LPG	24,000
Landside Filling Stations	Diesel	129,190
	Petrol	106,460
	LPG	25,400
	Total : Diesel	639,090
	Total : Petrol	140,960
	Total : LPG	49,400

2. The following table gives daily average consumption rates.

Airside Filling Stations (Calendar year 2017)	Diesel	Petrol	LPG
Annual consumption	9,958,752 litres	780,772 litres	199,833 litres
Daily averages (annual / 365 days)	27,210 litres	2,133 litres	546 litres

Landside Filling Stations (Calendar year 2017)	Diesel	Petrol	LPG
Annual consumption	3,590,773 litres	4,455,181 litres	1,261,206 litres
Daily averages (annual / 365 days)	9,811 litres	12,173 litres	3,446 litres

3. The above tables give an indication that if all things being equal (relatively full storage tanks at start of NLL scenario, consumption rates comparable to daily averages, etc.), diesel and petrol supplies may be sufficient for about 10-13 days' consumption; However, LPG may be an issue as data indicates storage capacity is only good for about 2 days' consumption.
4. Airport Fire Contingent
 - a. The following table summarizes the available vehicle fuel storage capacities of vehicle fuel filling stations overseen by the Airport Fire Contingent :

Locations	Fuel Types	Storage Capacity (in litres)
Airport South Fire Station	Diesel	5,000
	Petrol	5,000
Airport Centre Fire Station	Diesel	5,000
	Petrol	5,000
Airport North Fire Station	Diesel	5,000
	Petrol	5,000
East Sea Rescue Berth	Petrol	2,000
	Total : Diesel	15,000
	Total : Petrol	17,000

- b. The following tables give daily average consumption rates for calendar year 2022.

Airport South Fire Station	Diesel	Petrol
Annual consumption	47,960 litres	5,387 litres
Daily average (annual / 365 days)	131 litres	15 litres

Airport Centre Fire Station	Diesel	Petrol
Annual consumption	47,539 litres	683 litres
Daily average (annual / 365 days)	130 litres	2 litres

Airport North Fire Station	Diesel	Petrol
Annual consumption (1.3.2022 – 31.12.2022)	34,110 litres	222 litres
Daily average (annual / 306 days)	111 litres	1 litre

East Sea Rescue Berth	Petrol
Annual consumption	5,027 litres
Daily average (annual / 365 days)	14 litres

5. The above tables give an indication that diesel and petrol supplies can be sufficient for about 40 days and 531 days of consumption respectively.

B. Vehicle Fuel Contingency Plan

1. During typhoon season when landslip and flooding probabilities are higher and thus No Land Link situations more likely, fuel station franchisees are encouraged to arrange for more frequent topping up of fuel storage tanks to enable a greater fuel reserve at any one time.
2. The following contingency plans may be put into place should a No Land Link situation extend for more than 3 or 4 days in duration :
 - a. Arrange for a DG sailing of the flat top barges carrying fuel tanker trucks; return sailing on the flat top barge for the tanker trucks is also needed.
 - b. Coordination to also take place with Long Win Bus Company (LW), Citybus Company (CTB) and other bus companies to achieve synergy as they will have similar concerns and contingency plans for their Chek Lap Kok and Lantau bus operations.
3. During No Land Link situations, fuel supply to AFC appliances could last for one and a half month; nonetheless, station personnel will arrange for more frequent topping up of fuel storage tanks to enable a greater fuel reserve at any one time during typhoon season.

Appendix E - AAHK Essential Staff Contingency Ferry Plan

1. General

In the event of prolong land link disruption i.e. Total closure of land links or No Land Link Scenario, high speed ferry can be mobilized to convey AAHK essential staff to and from pick-up points at Hong Kong Island, Kowloon and Tung Chung as an interim / emergency measure until full activation of the Government No Land Link Ferry Plan.

2. Mobilization

- 2.1 Hong Kong & Kowloon Ferry Ltd. (HKKF) is one ferry service providers who can provide high speed ferry with capacity of 380 passengers at an estimated sailing time between Tung Chung and Central of approximately one hour.
- 2.2 The mobilization lead time for the ferry service is normally 2.5 hours, but will be 3.5 hours during peak hours (0700 – 1000hrs; 1600 – 2030 hrs.).
- 2.3 The Airport Emergency Centre (AEC) will be activated in the event of a No Land Link Scenario.
 - a. AEC Manager will instruct AEC SSBC Support Team Leader to mobilize the AAHK Essential Staff Ferry Emergency Plan.
 - b. AEC Team Leader to contact HKKF : Mr. Wong (9077 5558), Mr. Lee (6802 0534); The on-site coordinator is the Pier Supervisor at Central Pier 6 (9779-7397); if HKKF cannot provide a ferry, other ferry service providers are listed in the MBTA website (see Reference below).
 - c. Confirm with HKKF the routing and pick-up/drop-off points :
 - i. Routing to be Central Pier 6 at Hong Kong Island to Tsim Sha Tsui Public Pier at Kowloon, and Tung Chung Public Pier for Lantau.
 - ii. Return trip will be in reverse order.
 - iii. Depending on the seriousness of the No Land Link situation, the number of roundtrips per day and ferry schedule may need to be decided until full activation of the Government No Land Link Ferry Plan can provide a more stable ferry network.
 - d. Confirm with HKKF sailing times from Central Pier, TST and Tung Chung.
 - e. Inform HR and Administration Departments so they can :
 - i. Disseminate to all essential staff the details of the contingency ferry service highlighting the sailing timings and routing.
 - ii. Arrange shuttle bus services between Tung Chung Pier and HKIA Tower.

3.0 Reference

The list of ferry and boat service providers is available at URL:
<http://mbta.org.hk/4.1company01.htm#A>

Appendix F - Airport Road Detour Plans

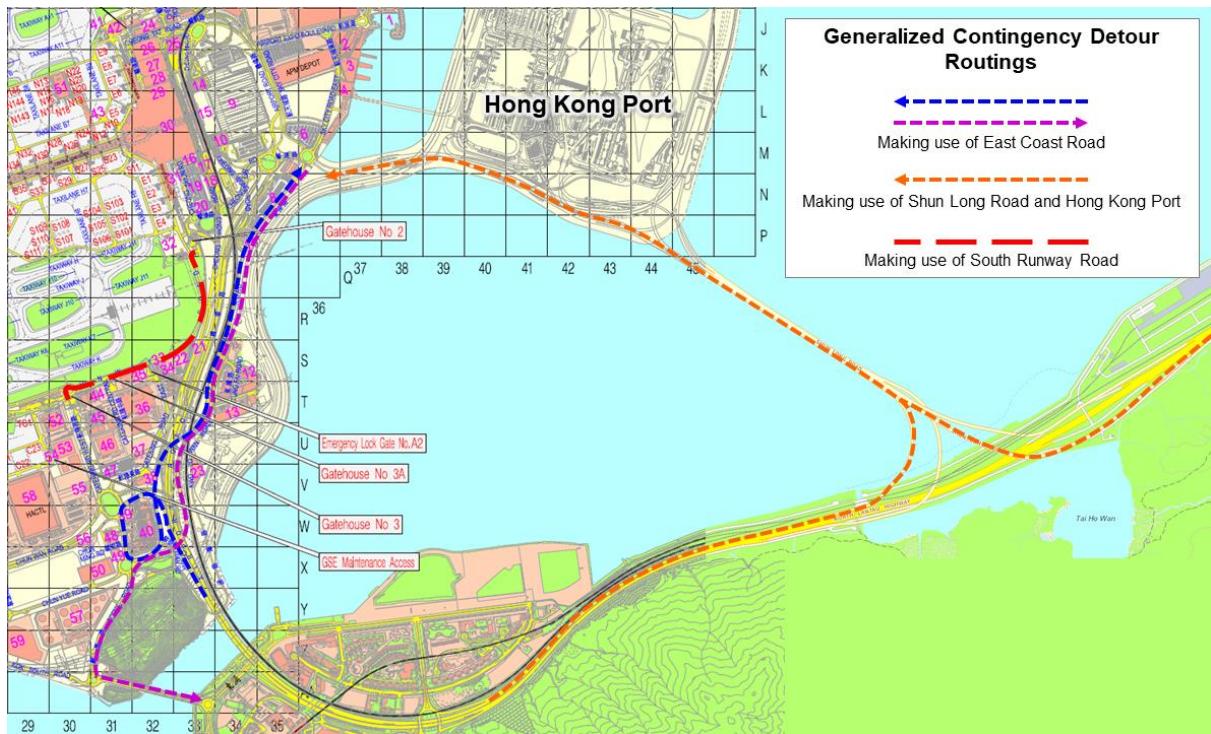
1. General

Disruptions or closures of the Airport Road preventing direct access to the passenger terminal buildings may result in conditions similar to a No Land Link scenario. Contingency detour plans will need to be actioned to ensure continued road access to the passenger terminal buildings.

2. Contingency Detour Plans

- 2.1 Disruptions or closures of the Airport Road may necessitate the detour of traffic onto the East Coast Road, if the East Coast Road is serviceable and free from the incident that disrupted and closed the Airport Road.
- 2.2 If the East Coast Road is also affected and closed by the incident that closed the Airport Road, then traffic will need to be rerouted through Hong Kong Port via North Lantau Highway, Shun Long Road and Chek Lap Kok Road to gain access to the passenger terminal buildings. As a last resort, traffic may have to detour into the airport restricted area, if possible, via Gatehouse 1, 2 and 3, or other available access points into and out of the airport restricted area.
- 2.3 If the North Lantau Expressway Bridge connecting CLK Island to Lantau Island is unusable, then traffic will need to be rerouted through:
 - 2.3.1. Tung Chung and detour onto the Second Sea Channel Bridge to gain access onto CLK Island.
 - 2.3.2. Tuen Mun Chek Lap Kok Link- Southern Connection (Shun Long Road) to Hong Kong Port, via Sky City Interchange or Airport Tunnel to access to the Airport.
- 2.4 Whichever contingency detours plans are to be used will depend upon the incident's impacts, availabilities of alternate routes, and dynamic coordination by the IAC/AEC.
- 2.5 Landside traffic management will be under LD.
- 2.6 Airside traffic management will be under AD.
- 2.7 Detailed operational procedures for the detour plans may be referenced in relevant AD departmental contingency plans and within the relevant volume of the Terminal & Landside Procedures Manual.

2.8 Simplified diagrams showing generalized contingency detour routings.



End of BCP – D1



Exhibit 1

Our Ref: MCDD/SPCB18/165

19 Sep 2018

Security Bureau,
The Government of the Hong Kong Special Administrative Region,
10th Floor, East Wing,
Central Government Offices,
2 Tim Mei Avenue, Tamar,
Hong Kong.

Attention : Mr. Thomas Wong,
Assistant Secretary (Security)

Dear Sir,

Re: Conversion of Sky Pier for Cross-Boundary Ferry Passenger to a Domestic Pier in the event of the activation of "No Land Link"

Reference is made to the Deed of Security Arrangements for Transfer of Cross-Boundary Ferry Passengers and Baggage dated 23 September 2003, which was subsequently varied by five Supplemental Deeds dated 25 June 2004, 31 January 2006, 30 November 2006, 1 November 2011 and 31 December 2015, respectively (the "Deed"). Words and expressions defined in the Deed shall have the same meaning used herein.

Pursuant to Paragraph 16.3 of the schedule to The Deed which stated that "The FT may be used for the transfer of passengers as an emergency contingency arrangement, details of which are subject to agreement by the Government and the Authority, during the loss of all direct road and rail links between the Airport and Kowloon, Tsing Yi or the New Territories.", the Airport Authority (AA) has agreed with the Government the necessary "No Land Link" ("NLL") procedures in the event that there is a complete loss of all direct road and rail links as aforesaid. This includes the conversion of the Ferry Terminal (FT), being a cross-boundary ferry terminal, into a domestic ferry terminal for carrying air passengers by approved vessels plying between the FT and ferry terminals within Hong Kong.

Under the established procedures, the "High Level Command Centre" of the Government of the HKSAR ("HLCC") will notify AA to implement the 'No Land Link' procedures and the Authority will convert the FT into a domestic ferry terminal within a time frame agreed with HLCC. Upon the resumption of either direct road or rail links between the Airport and Kowloon, Tsing Yi or the New Territories, HLCC will agree a time frame with AA to cease the operation of the FT as a domestic ferry terminal and convert the FT back to a cross-boundary ferry terminal. During the period when the FT is converted from a cross-boundary ferry terminal into a domestic ferry terminal under the NLL contingency scenario, the Authority will control personnel access to the restricted areas at SkyPier in such manner as deemed appropriate by making reference of the Cap. 483 Airport Authority Ordinance (AAO) and Cap. 483A Airport Authority Bylaw Part III Section 11. Relevant operations procedures have been included in the No Land Link contingency plan of AAHK which will be updated from time to time.



The Authority would like to confirm that the Security Bureau has no objection to converting the FT from a cross boundary ferry terminal into a domestic ferry terminal, which is dependent upon the notification from the HLCC. There is to be no conversion until the HLCC issues the notification. The conversion will adhere to the established NLL procedures AA will clear all cross boundary ferry passengers at the FT before converting the FT to a domestic ferry terminal catering to the conveyance of air passengers and air crews between the FT and ferry terminals within Hong Kong. In any case, AA will make sure there is no mingling of passengers being conveyed to and from the FT during NLL procedure and those cross-boundary passengers being conveyed under the terms of the Deed. During the period when the FT is being used as a domestic ferry terminal, the relevant terms and conditions of the Deed will not be applicable until the FT can be reverted to serving cross boundary passengers.

It is appreciated if you can signify your confirmation and agreement of the aforesaid by signing (at the space below) and returning to us the duplicate of this letter. Should you require any further information and / or clarification, please do not hesitate to contact us.

Yours faithfully,

Marilyn Ma,
Assistant General Manager,
for and behalf of the Airport Authority.

Confirm and agree to the matters as set out in this letter by :-

Thomas Wong,
Assistant Secretary (Security)
Security Bureau.
for and on behalf of the Government of the Hong Kong SAR
Date: 24 September 2018



**Exemption Certificate
issued by**

Exhibit 2

**The Government of the Hong Kong Special Administrative Region
of the People's Republic of China**

MERCHANT SHIPPING (SEAFARERS) ORDINANCE (CAP. 478)

MERCHANT SHIPPING (SEAFARERS) (HOURS OF WORK) REGULATION

Name of Ship	Distinctive No. or letters	Port of Registry	Gross Tonnage	IMO Number
MARCO POLO	HK-2287	HONG KONG	700	9500510
SHOPPES COTAI CENTRAL	HK-2045	HONG KONG	700	9429651
COTAI CENTRAL	HK-2056	HONG KONG	700	9429663
THE COTAI STRIP EXPO	HK-2044	HONG KONG	700	9429625
COTAI STRIP COTAIGOLD	HK-2164	HONG KONG	700	9429704
COTAI STRIP COTAIARENA	HK-2163	HONG KONG	700	9429699
THE PLAZA	HK-2115	HONG KONG	700	9429687
GOURMET DINING	HK-2165	HONG KONG	700	9429716
ST MARK	HK-2288	HONG KONG	700	9500508
DI MODA SQUARE	HK-2303	HONG KONG	700	9500481
CASTELLA SQUARE	HK-2302	HONG KONG	700	9500493
SHOPPES FOUR SEASONS	HK-2114	HONG KONG	700	9429675
THE GRAND CANAL SHOPPES	HK-2009	HONG KONG	700	9429601
THE VENETIAN	HK-2043	HONG KONG	700	9429613

Section 4 (1) of the Merchant Shipping (Seafarers) (Hours of Work) Regulation (Cap. 478D) ("Regulation") requires that a seafarer employed on a ship as officer in charge of a watch or as a rating forming part of a watch shall be provided a minimum of 10 hours of rest in any 24-hour period. In exercise of the powers conferred on me by Section 3 (2) of the Regulation, I hereby exempt the above ships from compliance with the requirements of that part of the Regulation subject to the condition as specified below.

“The Hong Kong International Airport No Land Link Plan is activated by the High-level Command Centre and the above vessels are arranged by Airport Authority Hong Kong and Transport Department to provide additional emergency ferry services between SkyPier at HKIA and Central Ferry Piers / Tuen Mun Ferry Terminal (TMFT) / Tuen Mun Ferry Pier (TMFP).”

This exemption shall have effect until revoke or shall be void when there is change to the list of the above vessels.



(S. F. WONG)
Director of Marine (Ag.)

Date: 21 December 2018

茲收到《豁免證明書》正本

姓名 : WAN CHZ Kitwong
身份證編號 : (Personal Information masked)
日期 : 10-01-2019





SD/MMO/1004/54 - 1/2018 - 003

Exemption Certificate
issued by

The Government of the Hong Kong Special Administrative Region
of the People's Republic of China

MERCHANT SHIPPING (SEAFARERS) ORDINANCE (CAP. 478)

MERCHANT SHIPPING (SEAFARERS) (HOURS OF WORK) REGULATION

Name of Ship	MMSI No.	Flag	Gross Tonnage	IMO Number
ZHONG SHAN 中山	412461640	The People's Republic of China	484	9108879
TAI JIAN 太建	412462270	The People's Republic of China	509	9161429
YI XIAN HU 逸仙湖	412869000	The People's Republic of China	484	9080455
JIN ZHU HU 金珠湖	412479780	The People's Republic of China	498	9812638

Section 4 (1) of the Merchant Shipping (Seafarers) (Hours of Work) Regulation (Cap. 478D) ("Regulation") requires that a seafarer employed on a ship as officer in charge of a watch or as a rating forming part of a watch shall be provided a minimum of 10 hours of rest in any 24-hour period. In exercise of the powers conferred on me by Section 3 (2) of the Regulation, I hereby exempt the above ships from compliance with the requirements of that part of the Regulation subject to the condition as specified below.

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This exemption shall have effect until revoked or shall be void when there is change to the list of the above vessels.

茲收到《豁免證明書》正本

姓名 : 宋秋林
身份證編號 : (Personal Information masked)
日期 : 2019年1月10日



(S. F. WONG)

Director of Marine (Ag.)

Date: 21 December 2018



**Exemption Certificate
issued by**

**The Government of the Hong Kong Special Administrative Region
of the People's Republic of China**

MERCHANT SHIPPING (SEAFARERS) ORDINANCE (CAP. 478)

MERCHANT SHIPPING (SEAFARERS) (HOURS OF WORK) REGULATION

Name of Ship	MMSI No.	Flag	Gross Tonnage	IMO Number
XUN LONG YI HAO 迅隆 1	412469240	The People's Republic of China	505	9119347
XUN LONG ER HAO 迅隆 2	412469250	The People's Republic of China	531	9185097
XUN LONG 3 迅隆 3	413461990	The People's Republic of China	438	9411147
XUN LONG 4 迅隆 4	413462220	The People's Republic of China	438	9411159
XUN LONG 5 迅隆 5	413471870	The People's Republic of China	282	9658587
XUN LONG 6 迅隆 6	413472060	The People's Republic of China	282	9658599
XUN LONG 7 迅隆 7	413489250	The People's Republic of China	443	9807839
XUN LONG 8 迅隆 8	413489260	The People's Republic of China	443	9808170

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This exemption shall have effect until revoke or shall be void when there is change to the list of the above vessels.



(S. F. WONG
Director of Marine (Ag.)

Date: 21 December 2018

茲收到《豁免證明書》正本

姓名 : 李X君
身份證編號 : (Personal Information masked)
日期 : 2019年1月10日



**Exemption Certificate
issued by**

**The Government of the Hong Kong Special Administrative Region
of the People's Republic of China**

MERCHANT SHIPPING (SEAFARERS) ORDINANCE (CAP. 478)

MERCHANT SHIPPING (SEAFARERS) (HOURS OF WORK) REGULATION

Name of Ship	MMSI No.	Flag	Gross Tonnage	IMO Number
SHI ZI YANG 8 獅子洋 8	413494820	The People's Republic of China	386	9848936
SHI ZI YANG 7 獅子洋 7	412479630	The People's Republic of China	387	9818383

Section 4 (1) of the Merchant Shipping (Seafarers) (Hours of Work) Regulation (Cap. 478D) ("Regulation") requires that a seafarer employed on a ship as officer in charge of a watch or as a rating forming part of a watch shall be provided a minimum of 10 hours of rest in any 24-hour period. In exercise of the powers conferred on me by Section 3 (2) of the Regulation, I hereby exempt the above ships from compliance with the requirements of that part of the Regulation subject to the condition as specified below.

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(S. F. WONG)

Director of Marine (Ag.)

Date: 21 December 2018

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姓名 :
身份證編號 : (Personal Information masked)
日期 : 2019年1月10日



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**The Government of the Hong Kong Special Administrative Region
of the People's Republic of China**

MERCHANT SHIPPING (SEAFARERS) ORDINANCE (CAP. 478)

MERCHANT SHIPPING (SEAFARERS) (HOURS OF WORK) REGULATION

Name of Ship	MMSI No.	Flag	Gross Tonnage	IMO Number
XIN HAI WEI 新海威	413492390	The People's Republic of China	544	9834686
XIN HAI SHAN 新海山	413492410	The People's Republic of China	462	9830563
HAI QIAO 海喬	412473430	The People's Republic of China	241	9576478
HAI CHI 海馳	412461990	The People's Republic of China	509	9161431
HAI YANG 海洋	412460880	The People's Republic of China	514	9124421
HAI QIN 海琴	412478080	The People's Republic of China	461	9781360
HAI JING 海璟	413486020	The People's Republic of China	461	9786607
HAI JUN 海鈞	412472920	The People's Republic of China	289	9553385
HAI YU 海鈺	413462750	The People's Republic of China	290	9553373

Section 4 (1) of the Merchant Shipping (Seafarers) (Hours of Work) Regulation (Cap. 478D) ("Regulation") requires that a seafarer employed on a ship as officer in charge of a watch or as a rating forming part of a watch shall be provided a minimum of 10 hours of rest in any 24-hour period. In exercise of the powers conferred on me by Section 3 (2) of the Regulation, I hereby exempt the above ships from compliance with the requirements of that part of the Regulation subject to the condition as specified below.

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This exemption shall have effect until revoke or shall be void when there is change to the list of the above vessels.

Date: 21 December 2018



(S. F. WONG)
Director of Marine (Ag.)

茲收到《豁免證明書》正本

姓名 : 李木強
身份證編號 : (Personal Information masked)
日期 : 2019年1月10日



**Exemption Certificate
issued by**

**The Government of the Hong Kong Special Administrative Region
of the People's Republic of China**

MERCHANT SHIPPING (SEAFARERS) ORDINANCE (CAP. 478)

MERCHANT SHIPPING (SEAFARERS) (HOURS OF WORK) REGULATION

Name of Ship	MMSI No.	Flag	Gross Tonnage	IMO Number
XIN HE SHAN 新鶴山	412460960	The People's Republic of China	467	9101089

Section 4 (1) of the Merchant Shipping (Seafarers) (Hours of Work) Regulation (Cap. 478D) ("Regulation") requires that a seafarer employed on a ship as officer in charge of a watch or as a rating forming part of a watch shall be provided a minimum of 10 hours of rest in any 24-hour period. In exercise of the powers conferred on me by Section 3 (2) of the Regulation, I hereby exempt the above ships from compliance with the requirements of that part of the Regulation subject to the condition as specified below.

"The Hong Kong International Airport No Land Link Plan is activated by the High-level Command Centre and the above vessel is arranged by Airport Authority Hong Kong and Transport Department to provide additional emergency ferry services between SkyPier at HKIA and Central Ferry Piers / Tuen Mun Ferry Terminal (TMFT) / Tuen Mun Ferry Pier (TMFP)."

This exemption shall have effect until revoke or shall be void when there is change to the list of the above vessel.



(S. F. WONG)

Director of Marine (Ag.)

Date: 21 December 2018

茲收到《豁免證明書》正本

姓名 : 李木裕
身份證編號 : (Personal Information Masked)
日期 : 2019年1月10日



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of the People's Republic of China**

MERCHANT SHIPPING (SEAFARERS) ORDINANCE (CAP. 478)

MERCHANT SHIPPING (SEAFARERS) (HOURS OF WORK) REGULATION

Name of Ship	MMSI No.	Flag	Gross Tonnage	IMO Number
YIN ZHU HU 銀珠湖	413494920	The People's Republic of China	499	9852987
LIAN GANG HU 蓮港湖	412876000	The People's Republic of China	484	9080467
MEI ZHU HU 镁珠湖	413490310	The People's Republic of China	499	9812640

Section 4 (1) of the Merchant Shipping (Seafarers) (Hours of Work) Regulation (Cap. 478D) ("Regulation") requires that a seafarer employed on a ship as officer in charge of a watch or as a rating forming part of a watch shall be provided a minimum of 10 hours of rest in any 24-hour period. In exercise of the powers conferred on me by Section 3 (2) of the Regulation, I hereby exempt the above ships from compliance with the requirements of that part of the Regulation subject to the condition as specified below.

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This exemption shall have effect until revoke or shall be void when there is change to the list of the above vessels.



(S. F. WONG)

Director of Marine (Ag.)

Date: 21 December 2018

茲收到《豁免證明書》正本

姓名 : 李木龍
身份證號碼 : (Personal Information masked)
日期 : 2019年1月10日



Exemption Certificate

issued by

The Government of the Hong Kong Special Administrative Region
of the People's Republic of ChinaMERCHANT SHIPPING (SEAFARERS) ORDINANCE (CAP. 478)MERCHANT SHIPPING (SEAFARERS) (HOURS OF WORK) REGULATION

Name of Ship	MMSI No.	Flag	Gross Tonnage	IMO Number
HENGXING 恒星	413462110	The People's Republic of China	249	9487718
RUIXING 瑞星	412472790	The People's Republic of China	241	9568029
PENG XING 1 鵬星 1	413490870	The People's Republic of China	451	9814818
PENG XING 11 鵬星 11	413468580	The People's Republic of China	285	9633329
PENG XING 12 鵬星 12	412476410	The People's Republic of China	285	9645243
PENG XING 15 鵬星 15	412477670	The People's Republic of China	338	9715294
PENG XING 16 鵬星 16	412477680	The People's Republic of China	338	9715309
PENG XING 18 鵬星 18	413482110	The People's Republic of China	338	9730567
PENG XING 19 鵬星 19	413484890	The People's Republic of China	338	9730579
PENG XING 20 鵬星 20	413486160	The People's Republic of China	338	9730581
PENG XING 21 鵬星 21	413490210	The People's Republic of China	345	9810862

Section 4 (1) of the Merchant Shipping (Seafarers) (Hours of Work) Regulation (Cap. 478D) ("Regulation") requires that a seafarer employed on a ship as officer in charge of a watch or as a rating forming part of a watch shall be provided a minimum of 10 hours of rest in any 24-hour period. In exercise of the powers conferred on me by Section 3 (2) of the Regulation, I hereby exempt the above ships from compliance with the requirements of that part of the Regulation subject to the condition as specified below.

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(S. F. WONG)

Director of Marine (Ag.)

Date: 21 December 2018

茲收到《豁免證明書》正本

姓名 :
身份證編號 : (Personal Information masked)
日期 : 2019年1月10日



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**The Government of the Hong Kong Special Administrative Region
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MERCHANT SHIPPING (SEAFARERS) ORDINANCE (CAP. 478)

MERCHANT SHIPPING (SEAFARERS) (HOURS OF WORK) REGULATION

Name of Ship	Distinctive No. or letters	Port of Registry	Gross Tonnage	IMO Number
UNIVERSAL MK I	HK-0111	HONG KONG	479	9060376
UNIVERSAL MK III	HK-0160	HONG KONG	479	9060390
UNIVERSAL MK V	HK-0623	HONG KONG	489	9236872
UNIVERSAL MK 2001	HK-0233	HONG KONG	605	9087556
UNIVERSAL MK 2002	HK-0232	HONG KONG	605	9087568
UNIVERSAL MK 2003	HK-0246	HONG KONG	605	9087570
UNIVERSAL MK 2004	HK-0290	HONG KONG	610	9087582
UNIVERSAL MK 2005	HK-0291	HONG KONG	610	9087594
UNIVERSAL MK 2006	HK-0319	HONG KONG	610	9139206
UNIVERSAL MK 2007	HK-0330	HONG KONG	610	9139218
UNIVERSAL MK 2008	HK-0357	HONG KONG	609	9139220
UNIVERSAL MK 2009	HK-1598	HONG KONG	579	9160188
UNIVERSAL MK 2010	HK-1599	HONG KONG	575	9182538
UNIVERSAL MK 2011	HK-1972	HONG KONG	695	9444209
UNIVERSAL MK 2012	HK-1973	HONG KONG	695	9433676

Section 4 (1) of the Merchant Shipping (Seafarers) (Hours of Work) Regulation (Cap. 478D) ("Regulation") requires that a seafarer employed on a ship as officer in charge of a watch or as a rating forming part of a watch shall be provided a minimum of 10 hours of rest in any 24-hour period. In exercise of the powers conferred on me by Section 3 (2) of the Regulation, I hereby exempt the above ships from compliance with the requirements of that part of the Regulation subject to the condition as specified below.

"The Hong Kong International Airport No Land Link Plan is activated by the High-level Command Centre and the above vessels are arranged by Airport Authority Hong Kong and Transport Department to provide additional emergency ferry services between SkyPier at HKIA and Central Ferry Piers / Tuen Mun Ferry Terminal (TMFT) / Tuen Mun Ferry Pier (TMFP)."

This exemption shall have effect until revoke or shall be void when there is change to the list of the above vessels.



(S. F. WONG)

Director of Marine (Ag.)

Date: 21 December 2018

茲收到《豁免證明書》正本

姓名 :
身份證編號 :
日期 :

Name : Tsang Man Ching
Title : Operations Division Director
Date : 10 Jan 2019



**Action Checklist
on
Emergency
Public Passenger Transport
Services
in case of No Land Link
to/from Lantau Island and
Chek Lap Kok**

**Transport Incident Management Section
Transport Department
August 2023**

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(Restricted)

**Action Checklist on Emergency Public Passenger Transport Services
in case of No Land Link to/from Lantau Island and Chek Lap Kok**

1. INTRODUCTION

- 1.1 The Lantau Link (“LL”), the North Lantau Highway (“NLH”), the Lantau Airport Railway (“LAR”), together with the Tuen Mun – Chek Lap Kok Tunnel Road (“TM-CLKTR”) form the land links between North-West Lantau (Tung Chung) / the Airport and the urban area. Incidents which cause congestion / blockage on the road links or disruption of LAR services will no doubt lead to serious delay to the public travelling to / from North-West Lantau / the Airport, in particular air passengers, and hence should be handled speedily. The LL, NLH and TM-CLKTR are also the only two existing road links connecting the Hong Kong-Zhuhai-Macao Bridge (“HZMB”) Hong Kong Port (“HKP”) and Hong Kong Link Road (“HKLR”) for Zhuhai / Macao. The operational / alerting procedures and contingency strategies for handling different types of road incidents on the land link are provided in the Action Checklist on Emergency Transport Arrangements for Land Links to / from North-West Lantau and the Airport.
- 1.2 This Action Checklist specifies the contingency arrangements for the No Land Link (“NLL”) scenarios, i.e. closure of land link together with the suspension of the rail services to / from Lantau Island and Chek Lap Kok from a few hours up to a few days. The NLL scenarios cover -

Scenario	Road Section	Rail	Direction
1	Full Closure of LL and TM-CLKTR	Suspension of AEL&TCL	both bounds
2	Full Closure of NLH and TM-CLKTR		
3	Full Closure of NLH, Cheung Tung Road and TM-CLKTR		

This Action Checklist also sets out the actions to be taken by Transport and Logistics Bureau (“TLB”), Transport Department (“TD”), Marine Department (“MD”), other government departments concerned, Airport Authority Hong Kong (“AAHK”), public transport operators (including bus, ferry and rail), in order to maintain a certain level of emergency public passenger transport services in the aforesaid scenarios; as well as the actions to be taken by or liaison to be required with other relevant organisations, such as Hong Kong International Theme Parks Limited (“HKITP”), AsiaWorld-

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Expo Management Limited (“AWEML”), Ngong Ping 360 Limited (“NP360L”), Hong Kong Hotels Association (“HKHA”), Travel Industry Authority (“TIA”) and Travel Industry Council of Hong Kong (“TIC”).

This Action Checklist comprises the following major sections:

- (a) existing public passenger transport services;
- (b) notification and alerting procedures;
- (c) emergency public passenger transport services;
- (d) incident scenarios and contingency plans for handling different types of NLL incidents;
- (e) division of responsibilities among government departments, transport operators and other agencies; and
- (f) important telephone and fax numbers.

1.3 As the above strategic land links stretch through a wide area, traffic and transport incidents which occur at nearby road networks may affect the traffic movement to / from North-West Lantau and the Airport. The following handbook / action checklists / manuals prepared by TLB, TD, MTRCL and AAHK are also relevant to the handling of incident arising from “No Land Link to / from Lantau Island and Chek Lap Kok”:

- (a) Transport Branch Internal Circular being updated by TLB;
- (b) Handbook on Handling of Emergency Traffic and Transport Incidents prepared by TD;
- (c) Action Checklist on Emergency Transport Arrangements for Land Links to / from North-West Lantau and the Airport prepared by TD;
- (d) Action Checklist on Emergency Public Transport Services for Breakdown of MTR Lantau Airport Railway prepared by TD;
- (e) Action Checklist on Ma Wan prepared by TD;
- (f) Emergency Procedures Manual prepared by AAHK;
- (g) Action Checklist for Handling Traffic and Public Transport Contingency Incidents for Hong Kong Disneyland Resort prepared by TD;
- (h) Action Checklist for Handling Traffic and Public Transport Incidents at Asia World Expo on Chek Lap Kok prepared by TD;
- (i) Action Checklist for Handling Traffic and Transport Incidents on the Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road (“HKLR”) and the Approach Roads of the Hong Kong-Zhuhai-Macao Bridge Hong Kong Port (“HKP”) being prepared by TD; and
- (j) Action Checklist for Handling Traffic and Transport Incidents at Tuen Mun – Chek Lap Kok Tunnel Road prepared by TD.

2. EXISTING PUBLIC PASSENGER TRANSPORT SERVICES

2.1 Lantau Island and Chek Lap Kok are served by different modes of public transport services, including rail services, franchised bus services, ferry services and residents' services.

A. Rail services

2.2 MTRCL operates two lines to the Airport and Tung Chung, they are:

- (a) Airport Express Line (“AEL”) runs between Hong Kong Station and AsiaWorld-Expo Station with 3 en-route stations (namely Kowloon, Tsing Yi and Airport); and
- (b) Tung Chung Line (“TCL”) runs between Hong Kong Station and Tung Chung with 6 en-route stations (namely Kowloon, Olympic, Nam Cheong, Lai King, Tsing Yi and Sunny Bay).

The two lines run on the common rail track between Hong Kong Island and Tung Chung outskirt except at platform tracks and two sections as follows:

- section between Kowloon Station and Tsing Yi Station; and
- section to the west of Tai Ho Wan junction.

Interchanges between different rail lines are available at MTR TCL interchanges with Tsuen Wan Line (“TWL”) at Lai King Station, with Island Line (“ISL”) at Central Station / Hong Kong Station, with Tuen Ma Line (“TML”) at Nam Cheong Station; and with Disneyland Resort Line (“DRL”) at Sunny Bay Station.

B. Ferry services

2.3 The only licensed ferry service in North Lantau is operated by Fortune Ferry Co. Ltd. plying among Tuen Mun, Tung Chung, Sha Lo Wan and Tai O. Sun Ferry Services Co. Ltd. (“Sun Ferry”) operates a scheduled ferry service between Central and Mui Wo in South Lantau. In addition, Discovery Bay Transportation Services Ltd. (“DBTPL”) operates scheduled ferry service between Central and Discovery Bay. Details of the existing and enhanced ferry services are shown in Annex 1(a) (I). The arrangements under NLL scenarios are shown in Annex 1(b).

C. Franchised bus services

2.4 There are 55 external bus routes respectively between the Airport/Tung

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Chung and other areas, i.e. Citybus Co. Ltd. (“CTB”) operates 25 routes (A10, A11, A12, A17, A20, A21, A22, A23, A25, A26/P, A29/P, E11/A/S, E21/A/C/X, E22/A/C/P/S/X, E23/A, N11, N21/A, N23, N26, N29, NA11, NA12, NA20, NA21 and NA29), and Long Win Bus Co. Ltd. (“LWB”) operates 30 routes (A31, A32, A33/X, A34, A36, A37, A38, A41/P, A43/P, A47X, E31, E32/A, E33/P, E36/A/P/S, E37/C, E41, E42/P/C, E43, N30, N31, N42/A, NA31, NA32, NA33, NA36, NA37, NA40, NA41, NA43 and NA47).

- 2.5 There are seven shuttle franchised bus routes serving passengers between Tung Chung and the Airport as well as the Lantau Link Toll Plaza:
- (a) CTB operates two routes (i.e. S52/A/P and S56) between Tung Chung / Tung Chung (Yat Tung Estate) and Airport;
 - (b) LWB operates three routes (i.e. S64/C/P/X, S65 and N64) between Tung Chung and Airport; and
 - (c) CTB and LWB jointly operate two routes, namely S1 (Tung Chung Station – AsiaWorld-Expo (Circular)) and R8 (Disneyland Resort – Lantau Link Toll Plaza (Circular)).
- 2.6 New Lantao Bus Co. (1973) Ltd. (“NLB”) operates two bus routes (i.e. A35 and N35) between South Lantau and the Airport, six bus routes (i.e. 3M, 11/A, 11S, 13S, 23, 23S) between South Lantau and Tung Chung, and seven bus routes (34, 36, 37/H/M/P/S, 38/X, 39M, N37 and N38) in Tung Chung.
- 2.7 Details of the above routes and the enhancement under NLL scenarios are in Annex 1(a) (II).

D. Residents’ services (“RS”)

- 2.8 Discovery Bay Transit Services Ltd. (“DBTSR”) operates three RS routes between Discovery Bay and other areas, namely DB01R (Discovery Bay – Tung Chung), DB02R (Discovery Bay – Airport) and DB03R (Discovery Bay – Sunny Bay) in Discovery Bay. Details and the enhancement under NLL scenarios are shown in Annex 1(a) (III).

E. Bus and GMB terminating at Hong Kong Port (“HKP”)

- 2.9 In addition to the nine airport “A” routes which are extended to serve the HKP, three new feeder franchised bus routes (B4, B5 & B6) and a new GMB Route No. 901 are introduced for the new infrastructure. Details of the new routes are in Annex 1(a) (IV).

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3. NOTIFICATION AND ALERTING PROCEDURE

- 3.1 A road / rail incident at LL, NLH or TM-CLKTR may significantly affect traffic on the access to / from the Lantau Island and Chek Lap Kok. While the handling for emergency traffic and transport incidents is set out in the TD's Handbook on Handling of Emergency Traffic and Transport Incidents, this Action Checklist sets forth the alerting systems for the various types of traffic and transport incident scenarios which are provided in the following sections. Sections 4 and 5 provide the procedures to deal with emergency incident that has happened along the road links and rail services concerned that lead to NLL scenarios.
- 3.2 Direct communication links among Government departments are important to ensure efficient and effective communication for expedient incident handling.

A. Notification and alerting system for road and rail incidents

For road incidents on LL, NLH, Cheung Tung Road and TM-CLKTR (see Annex 2)	For rail incidents at AEL or TCL (see Annex 3)
<ol style="list-style-type: none">1. The Police are normally the first department to receive reports of incidents affecting traffic on the road network. When the Police receive a report, the Police officers will be deployed to the scene to verify the type, nature and extent of the incident.2. Upon verification of the incident, the Police officer on the ground will (i) decide on the need and extent of any road closure and implement traffic diversion schemes as required, (ii) keep TD ETCC and relevant government departments informed of the latest traffic situation through the Regional Command and Control Centre (“RCCC”).	<ol style="list-style-type: none">1. In accordance with the current alerting mechanism agreed with the Government, MTRCL is required to notify TD ETCC by direct telephone line (or by fax) within 8 minutes of any service disruption incident that has occurred for 8 minutes or is expected to last for 8 minutes or more.2. In case of a rail incident which have caused or will cause significant adverse impact on regular railway services on the AEL or TCL, MTR Communication Co-ordination Centre (“CCC”) will issue alert messages to Police, TD, FSD, EMSD, ISD, POOA, MOM Contractor of the Hong Kong Port of HZMB, TMCA, TSCA and TM-CLKT operators, AAHK, AWE, HKITP, via multi-fax / phone.

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| <p>3. Upon notification by Police or other parties as the case may be, TD ETCC¹ will update traffic and transport conditions as well as liaison with the operators of public transport services concerned, the Tsing Ma Control Area (“TMCA”), the Tsing Sha Control Area (“TSCA”) and the TM-CLKT operators.</p> | <p>3. In case of a rail incident which have caused or will cause significant adverse impact on regular railway services on the AEL or TCL, MTR Communication Co-ordination Centre (“CCC”) will issue alert messages to the following parties via multi-fax / phone:</p> <ul style="list-style-type: none">(a) Police – for assistance in traffic and crowd control in public places;(b) Fire Services Department – for fire-fighting and rescue operations;(c) TD – for monitoring effectiveness of the relief transport services, and co-ordinating enhancement of other public transport services, publicity on emergency transport arrangements and latest traffic and public transport situation; alert AAHK, AWEML, HKITP, NP360L, HKHA, TIA and TIC; and for liaison with other public transport operators for assistance in the provision of relief transport services;(d) Electrical and Mechanical Services Department (“EMSD”) Railways Branch – for safety related incidents;(e) Information Services Department (“ISD”) – for government internal communication and dissemination of alert messages;(f) Media (including radio and TV stations) – for information dissemination;(g) Public Omnibus Operators Association (“POOA”) and KMB – for operating MTRCL’s emergency |
|---|--|

¹ Please refer to Part B of Section 3 for TD’s internal alert mechanism.

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	<p>bus services;</p> <p>(h) Other public transport operators (through TD) for assistance in the provision of relief transport services;</p> <p>(i) MOM Contractor of the Hong Kong Port of HZMB – for information dissemination</p> <p>(j) TMCA, TSCA and TM-CLKT operators – for monitoring possible sudden increase of road traffic within TMCA, TSCA and TM-CLKT;</p> <p>(k) Airport Authority Hong Kong (“AAHK”) Integrated Airport Centre (“IAC”) – for arranging public announcements to the airport community (including airline, travel industry, air passengers), and assisting in traffic and crowd control within the Airport Area;</p> <p>(l) Asia World-Expo (“AWE”) Security Control Room – for alerting all visitors of the contingency measures to be implemented by MTRCL and assisting in crowd management; and</p> <p>(m) Hong Kong International Theme Parks Ltd (“HKITP”) Security Control – for informing the visitors in the Hong Kong Disneyland Resort on rail incidents.</p>
4. Upon notification by Police or other parties as the case may be, relevant Government departments deploy officers of appropriate ranks to the scene to verify the type, nature and extent of the incident.	4. Whenever there is a need to issue an alert (whether an amber or red alert), MTRCL will contact TD ETCC and the Police via direct telephone lines first and then immediately issue alert message to all relevant agencies (including TD ETCC and the Police) by multi-fax. MTR CCC will give the following information in the Amber / Red Alert messages:

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	<ul style="list-style-type: none">(a) whether the message is an Amber / Red Alert message;(b) nature, cause and location of the incident;(c) services delayed or suspended;(d) services maintained;(e) expected duration of the service delay or suspension;(f) estimated number of passengers affected (on the train(s) or at the station(s));(g) whether emergency bus services will be provided and, if so, the route numbers and starting and ending points of the route(s);(h) whether relief transport services from other bus operators are needed;(i) if practicable, the expect time when train service will resume; and(j) publicity that will be / have been made.
5. Relevant Government departments will notify TD ETCC immediately if there are traffic and transport impacts and advise TD ETCC of their assessment of the time required for resumption of normal conditions. Based on the initial assessment of the severity of the incidents made by the Police, the responsible Government departments or the public transport operators, TD will decide on the appropriate tier of response to be adopted by TD ETCC in dealing with the incidents. TD will liaise with the Police for joining ETCC operation if Tier Three Response is considered necessary.	
6. Responsible Government departments will also alert relevant utility companies if their equipment or services are required or affected.	

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7. Relevant Government departments will clear obstructions on the road or repair of the damaged carriageway, provide professional and technical advice for alleviation of imminent dangers (e.g. unsafe scaffolding, building, slope, trees, etc.) as appropriate.	
8. In case of incidents that happen in TMCA, TSCA and TM-CLKT, or the lane / road closure is arranged by the respective operators (e.g. minor traffic accidents without reporting to the Police, high wind traffic management etc.), the Alert Procedures for TMCA, TSCA and TM-CLKT operators and TD's Internal Alert System stipulated in paragraph 3.8 should be followed.	
9. In case public transport services are adversely affected by the traffic incidents, the responsible public transport operator is required to issue "Amber Alert" or "Red Alert" for public transport emergency as appropriate. The definition of alert situations is provided at <u>Annex 2</u> . The public transport operator is required to notify TD ETCC through direct telephone lines, if available, or at 2410 0066 / 2410 0193 before issuing the alert messages.	
10. Following the closure of a road, the Police officers at the scene will report to RCCC, which in turn will notify i. Police Public Relations Branch ("PPRB") for dissemination of relevant information to the press, radio and television station; and ii. TD ETCC.	

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<p>11. TD ETCC and PPRB will disseminate the relevant information of the incident to the media and members of the public in the following manner:</p> <p>(i) Under Tier One Response of ETCC Operation</p> <p>➤ PPRB will issue notices to the media via ‘traffic bulletins’ covering the incident location and number of traffic lanes or sections of roads affected. PPRB and TD ETCC will keep each other informed of their own notices issued to avoid dissemination of conflicting messages.</p> <p>➤ TD ETCC will issue notices to the media with a copy to the “1823” on bus diversions, bus stop arrangements or changes of major public transport services.</p> <p>(ii) Under the Tier Two Response or Tier Three Response of ETCC Operation</p> <p>➤ ETCC will co-ordinate information dissemination to the media and members of the public and issue notices accordingly whenever necessary.</p> <p>➤ Operators of public transport services concerned, TMCA, TSCA and TM-CLKT are responsible for:</p> <ul style="list-style-type: none">• informing and updating TD ETCC of any changes of their transport services or traffic arrangements in their tunnels / control areas;• advising passengers at railway stations / stops of the AEL & TCL on any service adjustments, route diversion, service suspension and resumption and access arrangements as appropriate, through their public announcement systems, notices, VMSs and electronic display panels at bus termini / railway stations; and	
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<ul style="list-style-type: none">advising motorists in the tunnels and control areas through radio break-in system / VMSs on traffic incidents / diversion arrangements.	
12. Upon the notification by ETCC, the Airport Duty Manager of AAHK (“AA-ADM”) will decide whether Airport Emergency Centre (“AA-AEC”) should be activated.	
13. In addition to the standard mechanism on handling emergency traffic and transport incidents in accordance with this Action Checklist, should AA-AEC be established, ETCC will maintain coordination with AA-AEC; in parallel, AA-ADM will alert PAS(TL)8.	
14. PAS(TL)8 will alert DS(TL)4 and seek the steer from Permanent Secretary for Transport and Logistics (“PSTL”) as to whether the High Level Command Centre (“HLCC”) for No Land Link to Airport should be established. Please refer to Annex 4 for HLCC Core Membership and Terms of Reference.	
15. In the event PSTL decides the HLCC should be established, PAS(TL)8 will inform members of the HLCC via email, mobile phone or text messages, or other appropriate means.	

3.3 All responsible Government departments shall log the details of incidents that have been reported to ETCC.

B. TD’s internal alert system

- 3.4 All traffic and transport related incidents on the NLH, LL and TM-CLKTR should be reported to TD ETCC immediately. Upon receipt of the alert messages from the source department or operator:
- (a) TD ETCC should pass the message to TIMS Duty Officer (including TCSS / TIMS as appropriate);
 - (b) TIMS Duty Officer should make an initial assessment and, depending on the incident nature, relay the message to NTRO and TTMS for follow up actions during office hours or take up the matter outside office hours in consultation with the subject officer of the Boundary Team (for NLH, LL and TM-CLKTR) and Northwest Team (for TM-CLKTR only) of NTRO;
 - (c) TIMS Duty Officer should report the incident to CIM1 / CIM2, CCC, ETCC Controller (or Deputy Controller) and TLB Duty Officers as appropriate;
 - (d) For serious incidents, NTRO, TTMS or TIMS Duty Officer should report the incident to ETCC Controller (or DepCon A/B), AC/MP or PM, AC/NT, DC/TSM or C for T as appropriate, and provide updates

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to them and TLB Duty Officers throughout the incident period. In the event that the NLH/LL/TM-CLKTR has been / is to be closed, CIM1 / CIM2 will consult ETCC Controller (or DepCon A/B) during non-office hours, AC/MP or PM (for incidents within TMCA and TM-CLKTR) during office hours, AC/NT (for incidents outside TMCA and TM-CLKTR) during office hours on the need of activating ETCC Fixed Mode Operation for co-ordinated effort to deal with the expected large scale congestion in Tung Chung / Airport Island and nearby areas;

- (e) If ETCC Controller (or DepCon A/B), AC/MP or PM, AC/NT as appropriate after liaising with the Joint Operation Centre (“JOC”), consider that a TD representative is required at the HKP to enhance communications, he/she will assign the HKPCO who is a member of the NTRO to join the JOC of the HKP. Before HKPCO arrives at TD ETCC or JOC, as the case may be, he / she will be kept updated of the situation by CIM1 / CIM2 by means of mobile phone;
- (f) Before ETCC Fixed Mode operation is activated, TIMS will take up the co-ordination duties. TIMS Duty Officer will also disseminate messages about traffic arrangements to the public via the established channels; and
- (g) CCC and PIO should be alerted of incidents that are politically or media sensitive.

- 3.5 The communication plans among parties under the NLL to / from Lantau Island and Chek Lap Kok are provided in **Annex 5**.

C. Notification to Visitors and Hotel Guests at Disneyland Resort, Visitors and Exhibitors at AsiaWorld-Expo, at Ngong Ping 360, Hotels, Travel Agencies, Tour Companies, Airlines and AAHK Staff, and Drivers and Passengers on Hong Kong-Zhuhai-Macao Bridge (“HZMB”)

- 3.6 Under the NLL scenarios, TD will coordinate the information on road and rail incidents received from the stakeholders and issue press releases about special traffic arrangements and public passenger transport services to the public with a copy to the Hong Kong Hotels Association (“HKHA”) headquarters. HKHA then disseminates the information to its members through group fax during office hours or by hand to its member representatives at the Airport during non-office hours. TD will also send the

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same set of press releases to the Travel Industry Authority (“TIA”) and Travel Industry Council of Hong Kong (“TIC”) by fax during office hours and to the email accounts of Ms Annie Fonda of TIA (anniefonda@tia.org.hk) and Ms Fanny Yeung of TIC (office@tichk.org) respectively after alerting them by phone outside office hours. TIA and TIC will relay the information to their licensees and members respectively in accordance with their preferred channel either by email and/or by fax.

- 3.7 Upon receiving the notification from TD (ETCC), the following parties will issue notifications to their customers, guests and staff accordingly.

Parties	Customers, guests and staff to be notified
HKITP	inform the visitors and its staff members
AWEML	inform the visitors and exhibitors at AWE, and its staff members
NP360L	inform the visitors in cable car and Ngong Ping Village, and its staff members.
HKHA	inform members through group fax during office hours or by hand to its member representatives at the Airport during non-office hours.
TIA and TIC	inform its members by email or fax in accordance with their preference
AAHK	notify airlines and its staff members
MOM Contractor of Hong Kong Port (“HKP”)	inform visitors at the PTIs on HKP
Tunnel operator at Scenic Hill Tunnel (“SHT”)	arrange radio break-in for visitors of HZMB

D. High Level Command Centre

- 3.8 In the event that the road access to and from the Hong Kong International Airport is blocked, upon the notification by ETCC, the Airport Duty Manager (“AA-ADM”) of the Airport Authority Hong Kong (“AA”) will decide whether Airport Emergency Centre (“AA-AEC”) should be activated. In addition to the standard mechanism on handling emergency traffic and transport incidents in accordance with this Action Checklist, should AA-

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AEC be established, ETCC will maintain coordination with AA-AEC; in parallel, AA-ADM will alert PAS(TL)8. PAS(TL)8 will alert DS(TL)4 and seek the steer from Permanent Secretary for Transport and Logistics (“PSTL”) as to whether the HLCC for No Land Link to Airport should be established. The Core Membership and Terms of Reference on the HLCC are provided in **Annex 4**.

- 3.9 In the event PSTL decides the HLCC should be established, PAS(TL)8 will inform members of the HLCC via email, mobile phone or text messages, or other appropriate means. The HLCC will be set up at the Transport Department High Command Room on 16/F, South Tower, West Kowloon Government Offices, 11 Hoi Ting Road, Yau Ma Tei (i.e. one floor above and with direct access to the ETCC).
- 3.10 Subject to its deliberation, the HLCC will determine as to whether activation of the HKIA’s No Land Link Plan is required. In gist, if the HKIA’s No Land Link Plan is activated, on the passenger front, emergency ferry services will be provided between the SkyPier on the Airport Island and Central Piers and Tuen Mun Ferry Pier (mobilised by the AAHK and with the assistance of TD where appropriate). In addition to the emergency local ferry service between Tung Chung/ Disneyland Resort and Tsuen Wan, TD would also require the operators to enhance the local ferry services between Tung Chung, Mui Wo and Discovery Bay to downtown piers (mobilised by TD), as well as the bus feeders at the both ends to cater for the demand of the displaced passengers.
- 3.11 The timeline for the HLCC on the activation of HKIA’s No Land Link Contingency Plan is in **Annex 6**.
- 3.12 The elaboration on the reporting mechanism by ETCC/TD to TLB is in **Annex 7**. The procedures for notification to TLB and Security Bureau for serious incidents are provided in **Annex 8**. This should be read in conjunction with the Transport Branch Internal Circular.

E. Emergency contact

- 3.13 A list of emergency contact telephone / fax numbers of the stakeholders who are involved in dealing the NLL incidents to / from Lantau Island / Chek Lap Kok is enclosed in **Annex 9**.

4. EMERGENCY PUBLIC PASSENGER TRANSPORT SERVICES

OVERVIEW

- 4.1 When there are strong winds, driving on LL will be restricted. LL will be completely closed when the 10-minute mean wind speed is in excess of 190 kph. If NLH, LL, TM-CLKTR and LAR have to be completely closed for reasons other than inclement weather, such as road collapse or the activation of ship impact detection alarm for the Kap Shui Mun Bridge, TD would decide full closure after liaising with Highways Department (“HyD”) and the operators of Tsing Ma Control Area (“TMCA”) and TM-CLKT. For any incidents involving public order, the Police would make the decision in the light of its operational experience and close the land links under the Police Force Ordinance.
- 4.2 In the event that both rail services and road links to / from Lantau Island and Chek Lap Kok are suspended and broken simultaneously, **ferry service** is the only alternative to carry passengers to / from Chek Lap Kok and Lantau Island and other parts of the territory. The contingency actions are:
- A. to enhance the existing ferry services as soon as practicable;
 - B. to activate emergency ferry services Tsuen Wan Public Landing Steps Pier – Disneyland Resort Pier / Tung Chung Development Pier;
 - C. to activate additional emergency ferry services between SkyPier and Central / Tuen Mun; and
 - D. to strengthen or operate the rail and existing / special bus services for feeding the ferry passengers to/from their origins and destinations.
- 4.3 The additional emergency ferry services plying between SkyPier and Central/ Tuen Mun are primarily for air passengers (i.e. arriving/ departing air passengers) and air crew members while the enhanced regular and emergency ferry services between other piers in Lantau Island and the territories are provided to airport staff and all members of the public.
- 4.4 Upon activation of the additional emergency ferry services of the HKIA No Land Link Plan as decided by the HLCC chaired by PSTL, AAHK will convert the cross-boundary operations of SkyPier to local ferry operation for providing additional local emergency ferry services between SkyPier and Central Ferry Piers/ Tuen Mun Ferry Pier (“TMFP”) after the approval by SB and the completion of necessary formalities by the government departments concerned.

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A. Enhancement of existing ferry services

- 4.5 Both existing and emergency passenger ferry services will have to be enhanced / arranged to carry passengers to / from Lantau Island and Chek Lap Kok.
- 4.6 The following existing ferry services will be enhanced as soon as the operators can arrange:

	Route	Operator
i.	Central – Mui Wo	Sun Ferry
ii.	Central – Discovery Bay	DBTPL
iii.	Tuen Mun – Tung Chung – Sha Lo Wan – Tai O	Fortune Ferry
iv.	Central – Ma Wan*	Park Island Transport Co. Ltd (“PITCL”)
v.	Tsuen Wan – Ma Wan*	PITCL

* Only applicable to Scenario 1 (Section 1.2 refers) when vehicular traffic via the Lantau Link is completely closed, irrespective of AEL/TCL services are suspended.

B. Activation of emergency ferry services

- 4.7 TD has prior arrangement with Hong Kong & Kowloon Motor Boats & Tug Boats Association Ltd. (“MBTA”) on activation of emergency ferry services in times of NLL. Nevertheless, owing to resource constraints of MBTA and under short notice, **only one** of the emergency ferry services mentioned under (i) and (ii) below (i.e. either to Disneyland Resort Pier or Tung Chung Development Pier) will be provided.
- (i) **Tsuen Wan Public Landing Steps Pier and Disneyland Resort Pier**
- 4.8 Emergency ferry service between Tsuen Wan Public Landing Steps Pier (near Tsuen Wan West Station, but not the Tsuen Wan Ferry Pier currently used by PITCL) and Disneyland Resort Pier will be operated by MBTA subject to availability of resources.
- 4.9 TD will seek endorsement of DC for T or C for T on the activation of emergency ferry services between Tsuen Wan Public Landing Steps Pier and Disneyland Resort Pier. At least 2 hours will be needed by MBTA to mobilize the vessels after activation.
- 4.10 In connection with the concerned emergency ferry service, CTB and LWB will jointly provide temporary bus service (route S8) between Disneyland

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Resort Pier and Airport (via Tung Chung), if situation warrants.

- (ii) **Tsuen Wan Public Landing Steps Pier and Tung Chung Development Pier**
- 4.11 Emergency ferry service between Tsuen Wan Public Landing Steps Pier (near Tsuen Wan West Station, but not the Tsuen Wan Ferry Pier currently used by PITCL) and Tung Chung Development Pier will be operated by MBTA subject to availability of resources.
- 4.12 TD will seek endorsement of DC for T or C for T on the activation of emergency ferry services between Tsuen Wan Public Landing Steps Pier and Tung Chung Development Pier. At least 2 hours will be needed by MBTA to mobilize the vessels after the activation.
- 4.13 TD will enhance existing bus services connecting Tung Chung Development Pier with Tung Chung new town or Chek Lap Kok.
- 4.14 Detailed arrangements of the Tsuen Wan Public Landing Steps Pier, Disneyland Resort Pier and Tung Chung Development Pier are set out below
 -

(a) **Tsuen Wan**

Only landing steps are available. Ferry operator may need to use pontoon to facilitate boarding and alighting during emergencies. PITCL has agreed to release part of the landing pontoon and landing facilities for emergency ferry service provided that at least one hour advance notice to its control room and no interruption will be caused to its regular ferry service.

The above arrangement will only be applicable under Scenarios 2 and 3 when road transport via the Lantau Link is allowed and the residents' services to/from Ma Wan can be maintained. Under Scenario 1, additional trips of Ma Wan – Tsuen Wan ferry service will have to be operated and there will be practical difficulties in sharing of the pontoon with the emergency ferry service.

MBTA will operate the emergency ferry service from Tsuen Wan Public Landing Steps Pier and will provide assistance to the berthing operation and the crowd management as well as to erect signage and to set up queuing arrangement in the pier. Police will maintain law and order. **Diagram 1** shows the queuing arrangement outside the Tsuen Wan Public Landing Steps Pier as well as the locations of signage.

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(b) Hong Kong Disneyland Resort

Two sets of landing steps are available at the western berth of the Disneyland Resort Pier. MBTA will provide assistance to the berthing operation and the crowd management as well as to erect signage and to set up queuing arrangement. Police will maintain law and order. **Diagram 2** refers.

(c) Tung Chung

The western berth of Tung Chung Development Pier will be used. MBTA will provide assistance to the berthing operation and the crowd management as well as to erect signage and to set up queuing arrangement. Police will maintain law and order. **Diagram 3** shows the queuing arrangement outside the Pier.

C. Activation of “additional” emergency ferry services by HLCC

- 4.15 Subject to its deliberation, the HLCC will determine as to whether activation of additional emergency ferry services, i.e. activation of the HKIA No Land Link (“NLL”) Plan, is required. Upon activation by the HLCC, **eight** cross-boundary vessels and **two** local vessels will be arranged by AAHK and TD respectively to provide emergency ferry services between SkyPier at HKIA and Central Ferry Piers / Tuen Mun Ferry Pier (“TMFP”). Constrained by the turnaround time, six and four vessels will be deployed for the SkyPier-Central and SkyPier-TMFP respectively².
- 4.16 AAHK will liaise with the existing SkyPier ferry operators (i.e. Shun Tak-China Travel Ship Management Ltd. (“TurboJET”) and Chu Kong Passenger Transport Co. Ltd. (“CKS”)) on the provision of eight cross-boundary vessels for running the additional emergency local ferry services between Central Ferry Piers / TMFP. **At least three hours** will be needed by the cross-boundary ferry operators to mobilize the vessels. Subject to provision of all required documents³, i.e. i) travel documents of the crew; (ii) a list specify the particulars and posts of crew; and (iii) a company letter that guarantee to ensure the crew on board will leave Hong Kong upon or before the departure

² SkyPier Ferry Deployment Plan – Assumption and Rationale:

- (a) Turnaround time for SkyPier to/from Central, (20mins embark + 30mins sailing + 20mins disembark)
x 2 = 140mins
- (b) Turnaround time for SkyPier to/from Tuen Mun, (20mins embark + 15mins sailing + 20mins disembark)
x 2 = 110mins

³ AAHK should notify Dep Sec Commander (Airport) Field Operation the activation of Contingency Plan and requested ferry operator to prepare required documents for submission to the Duty Officer at Duty Office at Immigration Hall at Terminal 1 HKIA. Documents required include, but not limited to, (i) travel documents of the crew; (ii) a list specify the particulars and posts of crew; and (iii) a company letter from ferry operator in which guarantee to ensure the crew on board will leave Hong Kong upon or before the departure of the ferry / vessel in which they arrived in Hong Kong. Additional information / document may be required if deemed necessary.

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of the ferry / vessel, by the cross-boundry ferry operators, Immigration Department (“ImmD”) will process the necessary formalities to facilitate the crew’s performance of duty in Hong Kong. A company letter template from ferry operator that guarantee to ensure the crew on board will leave Hong Kong upon or before the departure of the ferry / vessel is attached and to be included in the Annex 10.

- 4.17 TD will liaise with MBTA on the provision of two local vessels under its contract with the latter for running the additional emergency local ferry services from SkyPier. The arrangements as set out in paragraph 4.15 to 4.16 are tabulated below for easy reference. The vessels list for operating emergency ferry services between SkyPier and Central/ Tuen Mun is provided in Annex 11.

Number of Vessels	Provider(s)	Responsible Party	Route(s)
8	TurboJET, CKS	AAHK	4 vessels for SkyPier to/from Central Ferry Pier 4 vessels for SkyPier to/from TMFP
2	MBTA	TD	2 vessels for SkyPier to/from Central

- 4.18 Berthing facilities and operation staff in SkyPier, Central Ferry Piers and TMFP will be arranged by AAHK and TD respectively within the three hours after activation by HLCC. For the avoidance of doubt, TD will liaise with the Central Ferry Piers operators to prepare berth as detailed in Section 4.20(b) for emergency ferry services between Central Pier and SkyPier. TD will liaise with Fortune Ferry Company Limited for allowing the TMFP to be shared use⁴ for the provision of emergency local ferry operation to and from SkyPier as well as its original local ferry to and from Tung Chung/ Sha Lo Wan/ Tai O. The arrangements are tabulated below for easy reference.

Pier	Number of Berths	Responsible Party
SkyPier	4 (Berths No. 3 to 6)	AAHK
Central Ferry Piers	3 (Pier No. 2 and 3. Pier No. 7 will be the last resort)	TD
Tuen Mun Ferry Pier	1 (Berth D)	TD

- 4.19 TD will also liaise with the bus operators for enhancing the supporting land

⁴ Provided that the share use will not affect the original licensed ferry services operated by Fortune Ferry Company Limited.

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transportation with the details shown in paragraph 4.29 and Annex 1(a) II.

- 4.20 Detailed arrangements of the SkyPier, Central Ferry Piers and TMFP are set out below -

(a) SkyPier

Four berths of SkyPier, currently used for cross-boundary operations, will be suspended and converted to local piers. Berths No. 3&4 will be assigned for Tuen Mun, and Berths No. 5&6 will be assigned for Central. AAHK will liaise with the cross-boundary ferry operators and the airport security company for the berthing operation and the crowd management in the SkyPier respectively. Airport Police will maintain law and order. **Diagrams 4(a) & (b)** shows the queuing arrangement at SkyPier.

(b) Central

The eastern berth of Central Pier No. 2 off Man Kwong Street is currently occupied by HKKF for parking of ferry vessels and logistic arrangements, and would be available for the operation of the additional emergency ferry service from SkyPier. In addition, the western berth of Central No. 2 is currently occupied by PITCL operating ferry service between Ma Wan and Central. When the additional emergency ferry service from SkyPier is operated, HKKF would render assistance to deploy additional staff to piers to monitor passenger demand and to regulate passenger queue and to provide assistance to berthing operation, including berthing arrangement and crowd management at Central Pier No. 2 when the emergency service between SkyPier and Central is operated. Upon the receipt of 2 to 3 hours advance notification from TD ETCC, HKKF will assist in the operation of the lift and ramp system and will carry out berthing operation and regulate passenger queuing order in the eastern berth of Central Pier No. 2 for the emergency ferry service to/ from the SkyPier.

Central Pier No. 3 off Man Kwong Street is also available. The eastern berth is currently occupied by DBTPL operating ferry service between Discovery Bay and Central. The western berth of the pier is available for the operation of the additional emergency ferry service. Under Scenario 3, DBTPL may require to use both berths in Central Pier No. 3 for further enhancement of ferry service to accommodate the additional demand brought by suspension of external bus services in Discovery Bay. Upon the receipt of 2 to 3 hours advance notification from TD ETCC, DBTPL would deploy additional staff to piers (including the western berth of Central Pier No.3) to monitor passenger demand and to regulate passenger queue; and provide

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assistance to berthing operation, including berthing arrangement and crowd management at Central Pier No.3 when the emergency service between SkyPier and Central is operated.

MBTA will erect signage outside the Central Pier No 2 and 3. Police will maintain law and order in the area. **Diagram 5** shows the queuing arrangement outside the Central Piers as well as the locations of signage. Waterfront promenade between Piers are for the queuing zones for the passengers to Pier No. 2 and Pier No. 3. Waterfront promenade between Pier No. 4 and 5 is the backup zone of passenger queuing.

Central Pier No. 7 near Man Kwong Street is also available but it will only be considered as the last resort. It is currently occupied by The ‘Star’ Ferry Company Ltd operating ferry service between Tsim Sha Tsui and Central. When the emergency ferry service from SkyPier is operated, the ‘Star’ Ferry Company Ltd will provide assistance to the berthing operation and the crowd management in the pier. AAHK anticipates the frequency of the emergency ferry service of Central–SkyPier will be 30-40 min in **Annex 1(b)** (i.e. 2 departures per direction per an hour). Assuming the loading and unloading of passengers with luggage at one end is 30 min or less, Central Pier No. 2 eastern berth & No. 3 western berth can handle 4 departures per hours (i.e. 60 min / 30 min x 2 berths) which is much higher than the anticipated frequency. Thus, the two piers are able to cater for the emergency ferry service to and from the SkyPier.

(c) **Tuen Mun**

Upon activation by HLCC, the only Berth D of Tuen Mun Ferry Pier (“TMFP”) (east of the TMFT) will be shared for use by the additional emergency ferry service to and from SkyPier, in addition to its original ferry service “Tuen Mun – Tung Chung – Sha Lo Wan – Tai O”. Fortune Ferry Company Limited (“FFCL”), the operator of ferry service “Tuen Mun – Tung Chung – Sha Lo Wan – Tai O” will provide assistance to the berthing operation and the crowd management within the TMFP area.

MBTA/FFCL will erect signage and will set up queuing arrangement in front of the entrance of TMFP. Police will maintain law and order. **Diagram 6(a)** shows the queuing arrangement outside the Pier as well as the locations of signage. Temporary drop-off points for private vehicles along Wu Chui Road are shown in **Diagram 6(b)**.

- 4.21 Details of the queueing and signage arrangements at piers in Tuen Mun, Tung Chung, Tsuen Wan and Central are in **Diagrams 7(a) – (e)**.

D. Supporting rail and bus services to the ferry services under NLL

Rail services

- 4.22 The impact on MTR services to/from the Airport/Tung Chung is follows:

Rail line	Service adjustments
AEL	<ul style="list-style-type: none">• truncate to run between Airport Station and AsiaWorld-Expo Station
TCL	<ul style="list-style-type: none">• under Scenario 1, truncate TCL to run between Hong Kong Station and Tsing Yi Station and between Tung Chung Station and Sunny Bay Station; and• under Scenarios 2 and 3, truncate TCL to run between Hong Kong Station and Sunny Bay Station.
DRL	<ul style="list-style-type: none">• maintain service between Disneyland Resort Station and Sunny Bay Station.

- 4.23 MTRCL will advise the passengers on TCL heading for the Airport/Tung Chung can change to TML service at Nam Cheong Station to Tsuen Wan West Station, and then interchange for emergency ferry service at Tsuen Wan Public Landing Steps Pier to Tung Chung Development Pier / Disneyland Resort Pier. The reverse direction of the above services is also feasible.

- 4.24 The stranded passengers at AEL Kowloon Station and Tsing Yi Station will be carried to Hong Kong Station by rail. MTR staff will provide them with latest information and direction to Central Ferry Piers to interchange for ferry services to Airport.

- 4.25 Upon receipt of the information from TD that emergency ferry service is provided at Tsuen Wan Public Landing Steps Pier, MTRCL will arrange shuttle bus service TE17 plying between Tsing Yi Station and Tsuen Wan West Station as an alternative choice for rail passengers to use the ferry service to Lantau Island.

Bus services

- 4.26 The existing bus services between ferry piers at Mui Wo / Discovery Bay and the Airport/Tung Chung will be strengthened as far as resources permit. However, the capacity problem of Tung Chung Road and roads in South Lantau should not be overlooked.

- 4.27 The existing “A” and “E” bus routes operated by LWB and CTB will be diverted to terminate at the nearest ferry pier at Central, Tsuen Wan and Tuen

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Mun for buses in urban areas, and to terminate at Tung Chung Development Pier for buses on Lantau Island and Chek Lap Kok for interchanging to/from existing or emergency ferry services. The diversion to Tsuen Wan is implemented only when the emergency ferry service between Tsuen Wan and Disneyland Resort Pier or Tung Chung Development Pier comes into operation.

- 4.28 The existing “R” bus routes, if not already departed, will cease operation. For the existing “R” bus routes operated by LWB and already departed from the bus termini will be diverted to terminate at the nearest ferry piers at Tuen Mun and Tsuen Wan for buses in urban areas, and to operate between Asia-World Expo and Tung Chung Development Pier for buses on Lantau Island for interchanging to/from existing or emergency ferry services. The diversion to Tsuen Wan is implemented only when the emergency ferry service between Tsuen Wan and Disneyland Resort Pier or Tung Chung Development Pier comes into operation.
- 4.29 The existing, enhanced and emergency bus services, as well as the existing and enhanced ferry services are shown in Annex 1(a). Emergency ferry services are listed out in Annex 1(b). Schematic diagrams of emergency bus and ferry services are shown in Annex 1(c).
- 4.30 The existing bus routes terminating at ferry piers and connecting Hong Kong Island / Kowloon / NT with Lantau Island or Chek Lap Kok are shown in Annex 12. The proposed emergency bus services terminating at ferry piers in Central, Tsuen Wan and Tuen Mun of NLL situation are highlighted in the Annex 1(a) (II). The bus diversion to Tsuen Wan and MTRCL’s TE17 are implemented only when the emergency ferry service from Tsuen Wan to Disneyland Resort Pier or Tung Chung Development Pier is activated. The temporary terminal arrangement is shown in Annex 13(a). Details of the shuttle bus service TE17 plying between Tsing Yi Station and Tsuen Wan West Station provided by MTRCL are shown in Annex 13(b).
- 4.31 For those LWB and CTB buses that are trapped on Lantau Island and Chek Lap Kok, they will be redeployed to operate feeder services to the SkyPier, Tung Chung Development Pier, Airport Passenger Terminal Building, Asia World Expo, Tung Chung town centre, Disneyland Resort Pier and Discovery Bay if appropriate. If the closure of LL is prolonged, the bus fuel supply and replacement drivers would become problems.
- 4.32 If necessary and with TD’s approval, the existing bus services operating between the Airport and Tung Chung will be diverted via Tung Chung Development Pier as an en-route stop for interchanging to/from existing or emergency ferry services at Tung Chung Development Pier. The authorization letters and Schedule of Service of the affected bus routes

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(operated by LWB and CTB) are shown in **Annex 14**.

- 4.33 In addition to the bus service arrangements mentioned above, CTB, LWB and NLB should also give attention to the working schedule arrangement of the bus drivers under NLL situation. The guideline of the work schedule for Bus Drivers issued by TD should be compiled.

Management of Bus and Ferry Connection Points

- 4.34 To facilitate the operation of the additional emergency ferry and bus services, the operators concerned are responsible for managing the bus termini (or en-route bus stops) and ferry piers under NLL situation. Details of the responsible parties and their tasks are shown in **Section 6**.

E. Limitations

- 4.35 Since the external transport links of Lantau Island and the airport have mainly been two land-based mass transit carriers, namely the railway and franchised buses, the role of waterborne transport as an alternative in case of full closure of land links is rather limited given the constraints of capacity and speed of ferries. Notwithstanding that, the Government will continue to co-operate closely with all relevant emergency units with a view to minimising the inconvenience caused to passengers and other members of the public. As constrained by the availability of vessels provided by ferry service operators (i.e. a total of 10 vessels) and the berths available at SkyPier (a total of 4 berths at SkyPier), the supply of ferry capacity may not be able to meet the demand according to AAHK's estimated airport travel demand. It is estimated that the number of original destination passengers is 63,810 daily (see table 1 below). Despite the estimated air passengers' demand as quoted below, the vessels capacity of the additional emergency ferry services routes available can only serve around 1,370 passengers per hour. (see table 2 below).

Table 1

Origin Destination (OD) Passengers	Daily: 63,810 (one-way)
Airport staff	Normal day: 52,240 (one-way)

Table 2

<u>Additional Emergency Ferry Services Routes</u>	<u>Capacity (passengers/hr)</u>
Tuen Mun Ferry Pier–SkyPier	325
Central Pier No. 2– SkyPier	360
Central Pier No. 3– SkyPier	360
	Total: 1,045

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An illustration of the above is provided in **Annex 15**.

- 4.36 Apart from the transport capacity that can be provided directly to and from SkyPier, there are also indirect transportation by enhancing the existing ferry services to Mui Wo, Discovery Bay and Tung Chung with the need of the second feeder leg to the airport. But the throughput of these enhanced ferry services is limited and the lower transport throughput is mainly due to the following bottlenecks:
- (a) little spare capacity of franchised buses en-route Tung Chung Road linking Mui Wo with Tung Chung new town – even though there are large capacity vessels available on the Mui Wo – Central route;
 - (b) private road in Discovery Bay — prohibits the use of franchised buses to carry passengers through this residential development for access to/from the ferry pier (also with large capacity vessels serving the Discovery Bay – Central route); and
 - (c) vessels deployed to serve Tung Chung (Fortune Ferry regular service) and serve Disneyland Resort Pier or Tung Chung (MBTA emergency service) are generally of low capacity type.
- 4.37 For a prolonged closure of land link, the HLCC, together with relevant government departments including TD, MD and AAHK and MTRCL will continuously assess the developing situation in order to best match flight operations to the sealift capabilities of the emergency ferry services.

Section 5

5. INCIDENT SCENARIOS AND CONTINGENCY PLANS

- 5.1 This section provides a quick reference of actions and procedures to be taken by the relevant parties including Government Bureaus, Departments and public transport operators for NLL situation.
- 5.2 The contingency plans for the three different scenarios of closures of land links to Airport / Tung Chung are as follows:

Scenario	Road Section	Rail	Direction
1	Full Closure of LL and TM-CLKTR	Suspension of AEL&TCL	both bounds
2	Full Closure of NLH and TM-CLKTR		
3	Full Closure of NLH, Cheung Tung Road and TM-CLKTR		

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Scenario 1: Full Closure of Lantau Link and Tuen Mun – Chek Lap Kok Tunnel Road (both bounds) and Service Suspension of AEL&TCL

Contingency Strategies

- A. Strengthen existing ferry service as soon as possible;
- B. Arrange additional emergency ferry services if the road closure is expected to last for more than two hours; and
- C. Truncate the “A” and “E” routes to the nearest ferry piers and strengthen / operate special feeder bus routes and RS routes to carry the passengers to / from their origins and destinations.

Actions to be taken

- A. TD ETCC and TTMS to closely liaise with the Police / TMCA operator / TM-CLKT operator / MTRCL, ferry, bus and RS operators and other relevant parties regarding the traffic situation;
- B. TD ETCC to release the latest traffic news to give appropriate advice to the public through the media and mobile applications, so as to enable passengers to plan their journeys accordingly and minimise the impact on passengers;
- C. TD ETCC to maintain close communication with public transport operators to strengthen the following transport services:

(1) Existing ferry services

- (a) DBTPL to strengthen the licensed ferry service between Central and Discovery Bay and carry out crowd management in the piers;
- (b) Sun Ferry to strengthen the licensed ferry service between Central and Mui Wo and carry out crowd management in the piers;
- (c) Fortune Ferry to strengthen the licensed ferry service of “Tuen Mun - Tung Chung – Sha Lo Wan – Tai O” and carry out crowd management in the piers;
- (d) PITCL to strengthen the licensed ferry services between Central and Ma Wan; and to operate additional trips between Tsuen Wan and Ma Wan; and
- (e) PITCL and HKKF to carry out crowd management in their pier.

(2) If the closure is expected to last for over 2 hours

(I) Emergency ferry services

- (a) MBTA to operate emergency ferry service between Tsuen Wan Public Landing Steps Pier and Disneyland Resort Pier upon TD’s request; or
- (b) MBTA to operate emergency ferry service between Tsuen Wan Public Landing Steps Pier and Tung Chung Development Pier

- upon TD's request; and
- (c) MBTA to erect signage and will set up queuing arrangement in the relevant piers in paragraph 4.7.

(II) Additional emergency ferry services (upon activation by HLCC)

- (a) AAHK to mobilize eight vessels and TD to mobilize two vessels for operating additional emergency ferry services between SkyPier and Central/ Tuen Mun;
- (b) AAHK to arrange with ImmD crew's eligibility to perform duty;
- (c) AAHK to arrange for berthing operation, signage erection and crowd management in the SkyPier;
- (d) TD to arrange for berthing operation, signage erection and crowd management in the Central Ferry Piers and TMFP;
- (e) At least 3 hours will be required to complete the conversion of SkyPier to local ferry operation, preparation at Central Ferry Piers and TMFP, as well as mobilization of the 10 vessels; and
- (f) TD to arrange supporting land transportation.
- (g) The "Star" Ferry Company Limited to spare one berth at Central Pier No. 7 for the operation of the emergency ferry services if necessary, provide assistance in crowd management, and erect/display proper signs at Central Pier No. 7 for the "Central – Tsim Sha Tsui" ferry service. (The last resort)

(III) Franchised bus services

- (a) CTB to strengthen Rts. S1 and S56 (Tung Chung Station – Airport); divert Rts. S1, S52, S52A and S52P via Tung Chung Development Pier; and suspend B5 (Sunny Bay Station – HZMB (Hong Kong Port));
- (b) LWB to strengthen Rts. S1, S64C and S64P (Tung Chung Station – Ying Tung Estate) and S65; and divert Rts. S1, S64 and N64 via Tung Chung Development Pier;
- (c) NLB to strengthen Rts. A35 (Mui Wo – HZMB (Hong Kong Port)), N35 (Mui Wo – HZMB (Hong Kong Port)) and 3M (Mui Wo – Tung Chung Station Bus Terminus); 37 (Yat Tung Estate – Caribbean Coast) between Tung Chung Development Pier and Tung Chung Station), B4 (Airport) – HZMB (Hong Kong Port)) and B6 (Tung Chung (Mun Tung Estate) – HZMB (Hong Kong Port));
- (d) AAHK to provide coach services between SkyPier and the Airport GTC;
- (e) CTB to truncate the A & E routes serving Hong Kong Island to

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Central Piers as well as CTB/ NWFB to strengthen the bus services to and from the Piers;

- (f) CTB & LWB to truncate the A & E routes from Kowloon and NT East (except North)/ Kwai Tsing/ Tsuen Wan respectively to Tsuen Wan Public Landing Steps Pier; and
- (g) LWB to truncate the A & E routes from Tuen Mun/ Yuen Long/ North to Tuen Mun Ferry Terminal.

(3) If the emergency ferry service between Tsuen Wan and (i) Disneyland Resort Pier; or (ii) Tung Chung Development Pier comes into operation

- (a) MTRCL to maintain AEL service between Sunny Bay Station and AsiaWorld-Expo Station, TCL service between Hong Kong Station and Tsing Yi Station and between Tung Chung Station and Sunny Bay Station; and DRL service between Disneyland Resort Station and Sunny Bay Station; to arrange shuttle bus service TE17 plying between Tsing Yi Station and Tsuen Wan West Station as an alternative choice for rail passengers to use the ferry service to Lantau Island as shown in **Annex 13(b)**;
- (b) CTB to suspend Rts. A10, A11, A12, A17, E11/A/S, E21/A/C/X, E22/A/C/P/S/X, E23/A, NA21 and R8; operate special Rt. A12S (Siu Sai Wan - Central Ferry Piers); and special Rt. S8 Disneyland Resort Pier and Airport (via Tung Chung), truncate Rt. N11, NA11 and NA12 to Central Ferry Piers and Rts. A20, A21, A22, A23, A25, A26/P, A29/P, N21/A, N23, N26 N29, NA20 and NA29 to Tsuen Wan West Station PTI;
- (c) LWB to truncate Rts. A32, A41/P, A47X, E31, E32/A, E41, E42/P/C, N31, N42/A to Tsuen Wan West Station PTI, truncate Rts. A33/X, A34, A36, A37, A43/P, E33/P, E36/A/P/S, E37/C, E43 and N30 to Wu Chui Road westbound outside Tuen Mun Pier Head Bus Terminus, and suspend Rts. A31, A38, NA31, NA32, NA33, NA36, NA37, NA40, NA41, NA43, NA47, R8, R33 and R42;
- (d) GMB operator concerned to strengthen GMB 901(Tung Chung North—Hong Kong Port); and
- (e) DBTSL to strengthen Residents' Service Rts. DB01R (Discovery Bay – Tung Chung), DB02R (Discovery Bay – Airport) and DB03R (Discovery Bay – Sunny Bay).

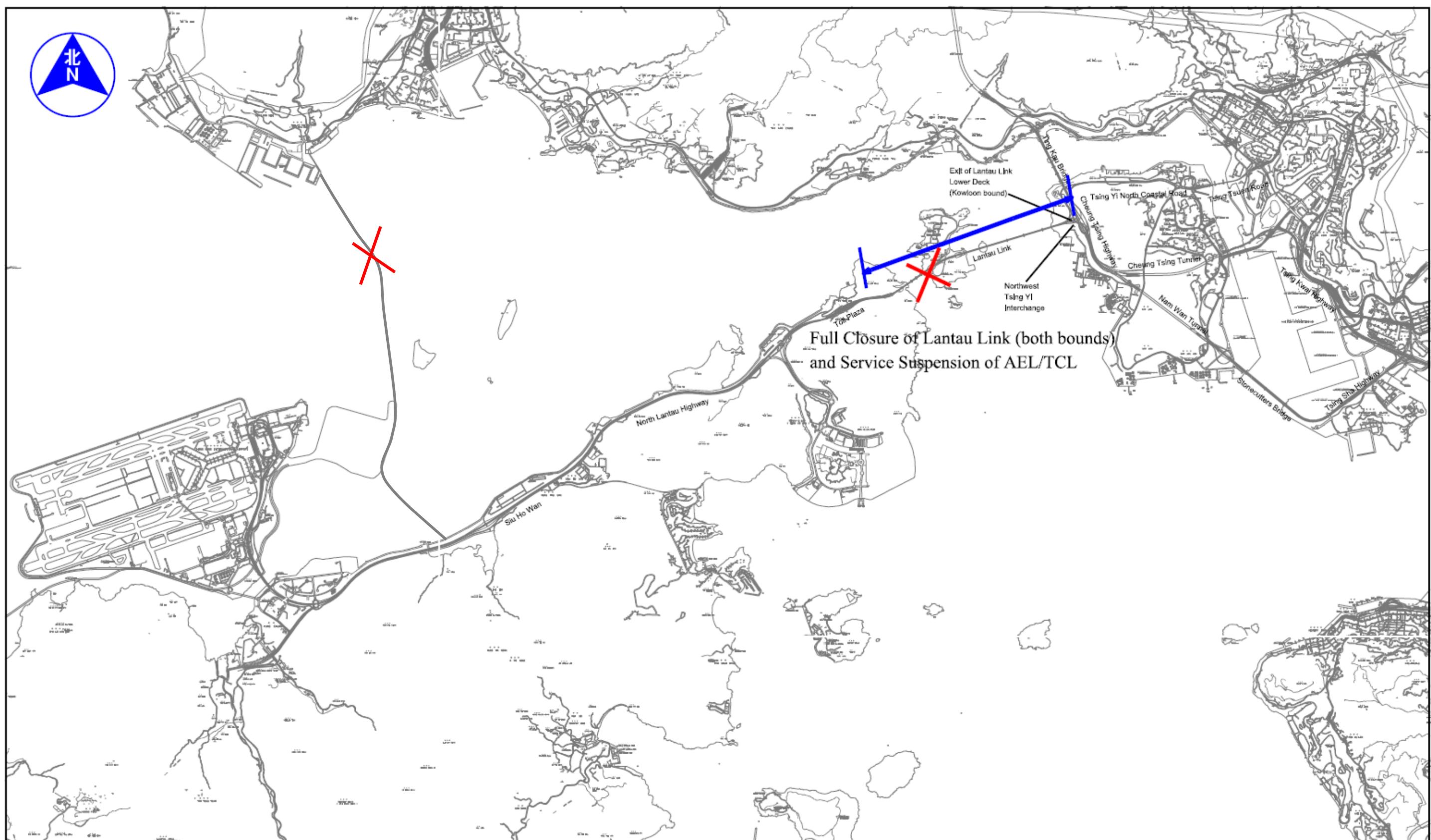
(4) If the emergency ferry service between Tsuen Wan and Disneyland Resort Pier comes into operation

- (a) LWB/CTB to jointly operate a special route no. S8 between Disneyland Resort Pier and Airport (via Tung Chung).

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- D. MTRCL, bus and ferry operators concerned to manage the rail stations, Public Transport Interchanges (“PTIs”) and ferry piers concerned (details are provided in paragraph 4.33), and disseminate information to the passengers;
- E. TD to monitor the traffic and transport situation (“T&T”) with relevant stakeholders, conduct T&T assessment for HLCC, disseminate latest T&T information to the public, convey emergency messages and updated T&T information to relevant stakeholders, and work out with TLB and AAHK on media arrangements other than public announcements;
- F. Police to handle the incident on site, monitor traffic condition, carry out crowd control at piers, major rail stations and PTIs;
- G. FSD to take up the fire-fighting and rescue operations;
- H. MD to regulate marine traffic;
- I. C&ED to maintain normal customs clearance service for arrival passengers and their baggage at Customs checkpoints of Hong Kong International Airport;
- J. ImmD to maintain normal immigration clearance and process necessary formalities to facilitate the crew to perform emergency ferry duty in Hong Kong;
- K. EMSD to keep close liaison with the utility companies and MTRCL and ensure that if electricity and piped gas suppliers are interrupted during an emergency, these companies will, as quickly as practicable, carry out repair works to resume supplies;
- L. CAS to manage order of passengers of emergency ferry services between SkyPier and Central at the concerned Central Ferry Pier(s), Tuen Mun Ferry Pier and PTIs;
- M. TMCA, TM-CLKT and relevant tunnel and control area operators (SHT and TLT operators, MOM contractor of HZMB HKP) to disseminate emergency messages and information via radio break-in and VMS;
- N. HyD to clear and repair the blocked / damaged public roads, make assessment and recommend contingency arrangement if highway including highway structures / street furniture are damaged;
- O. WSD to deal with main burst incidents affecting traffic on major routes;
- P. DSD to clear and repair blocked or damaged public sewers and storm-drains;
- Q. CEDD to deal with landslides, advise on potential dangers due to landslides and measures to deal with them immediately;
- R. DO/Islands to inform local personalities in Lantau Island of the incident and contingency public passenger transport services;
- S. DO/Tsuen Wan to inform local personalities in Ma Wan of the incident and contingency public passenger transport services;
- T. AAHK, HKITP, AWEML, NP360L, HKHA, TIA and TIC to inform visitors of the incidents and assist in crowd management.

Scenario 1 of No Land Link



Scenario 2: Full Closure of North Lantau Highway and Tuen Mun – Chek Lap Kok Tunnel Road (both bounds) and Service Suspension of AEL&TCL

Contingency Strategies

- A. Strengthen existing ferry service as soon as possible;
- B. Arrange additional emergency ferry services if the road closure is expected to last for more than two hours; and
- C. Truncate the “A” and “E” routes to the nearest ferry piers and strengthen / operate special feeder bus routes and RS routes to carry the passengers to / from their origins and destinations.

Actions to be taken

- A. TD ETCC and TTMS to closely liaise with the Police / TMCA operator / TM-CLKT operator / MTRCL, ferry, bus and RS operators and other relevant parties regarding the traffic situation;
- B. TD ETCC to release the latest traffic news to give appropriate advice to the public through the media and mobile applications, so as to enable passengers to plan their journeys accordingly and minimise the impact on passengers;
- C. TD ETCC to maintain close communication with public transport operators to strengthen the following transport services:

(1) Existing ferry services

- (a) DBTPL to strengthen the licensed ferry service between Central and Discovery Bay and carry out crowd management in the piers;
- (b) Sun Ferry to strengthen the licensed ferry service between Central and Mui Wo and carry out crowd management in the piers;
- (c) Fortune Ferry to strengthen the licensed ferry service of “Tuen Mun - Tung Chung – Sha Lo Wan – Tai O” and carry out crowd management in the piers; and
- (d) PITCL and HKKF to carry out crowd management in their piers.

(2) If the closure is expected to last for over 2 hours

(I) Emergency ferry services

- (a) MBTA to operate emergency ferry service between Tsuen Wan Public Landing Steps Pier and Disneyland Resort Pier upon TD’s request; or
- (b) MBTA to operate emergency ferry service between Tsuen Wan Public Landing Steps Pier and Tung Chung Development Pier upon TD’s request.
- (c) MBTA to erect signage and will set up queuing arrangement in the relevant piers in paragraph 4.7.

(II) Additional emergency ferry services (upon activation by HLCC)

- (a) AAHK to mobilize eight vessels and TD to mobilize two vessels for operating additional emergency ferry services between SkyPier and Central/ Tuen Mun;
- (b) AAHK to arrange with ImmD crew's eligibility to perform duty;
- (c) AAHK to arrange for berthing operation, signage erection and crowd management in the SkyPier;
- (d) TD to arrange for berthing operation, signage erection and crowd management in the Central Ferry Piers and TMFP;
- (e) At least 3 hours will be required to complete the conversion of SkyPier to local ferry operation, preparation at Central Ferry Piers and TMFP, as well as mobilization of the 10 vessels; and
- (f) TD to arrange supporting land transportation.
- (g) The “Star” Ferry Company Limited to spare one berth at Central Pier No. 7 for the operation of the emergency ferry services if necessary, provide assistance in crowd management, and erect/display proper signs at Central Pier No. 7 for the “Central – Tsim Sha Tsui” ferry service. (The last resort.)

(III) Franchised bus services

- (a) CTB to strengthen Rts. S1, S56 (Tung Chung Station – Airport) and B5 (Sunny Bay Station – HZMB (Hong Kong Port)); divert Rts. S1, S52, S52A and S52P via Tung Chung Development Pier;
- (b) LWB to strengthen Rts. S1, S64C and S64P (Tung Chung Station – Ying Tung Estate; and divert Rts. S1, S64 and N64 via Tung Chung Development Pier;
- (c) NLB to strengthen Rts. A35 (Mui Wo – HZMB (Hong Kong Port)), N35 (Mui Wo – HZMB (Hong Kong Port)) and 3M (Mui Wo – Tung Chung Station Bus Terminus); 37 (Yat Tung Estate – Caribbean Coast) between Tung Chung Development Pier and Tung Chung Station), B4 (Airport) – HZMB (Hong Kong Port)) and B6 (Tung Chung (Mun Tung Estate) – HZMB (Hong Kong Port));
- (d) AAHK to provide coach services between SkyPier and the Airport GTC;
- (e) CTB to truncate the A & E routes serving Hong Kong Island to Central Piers as well as CTB/ NWFB to strengthen the bus services to and from the Piers;
- (f) CTB & LWB to truncate the A & E routes from Kowloon and NT East (except North)/ Kwai Tsing/ Tsuen Wan respectively to

Tsuen Wan Public Landing Steps Pier; and

- (g) LWB to truncate the A & E routes from Tuen Mun/ Yuen Long/ North to Tuen Mun Ferry Terminal.

(3) If the emergency ferry service between Tsuen Wan and (i) Disneyland Resort Pier; or (ii) Tung Chung Development Pier comes into operation

- (a) MTRCL to maintain AEL service between Airport Station and AsiaWorld-Expo Station, TCL service between Hong Kong Station and Tsing Yi Station and between Tung Chung Station and Sunny Bay Station; and DRL service between Disneyland Resort Station and Sunny Bay Station; to arrange shuttle bus service TE17 plying between Tsing Yi Station and Tsuen Wan West Station as an alternative choice for rail passengers to use the ferry service to Lantau Island as shown in Annex 13(b);
- (b) CTB to suspend Rts. A10, A11, A12, A17, E11/A/S, E21/A/C/X, E22/A/C/P/S/X, E23, E23A, NA21 and R8; operate special Rt. A12S (Siu Sai Wan - Central Ferry Piers); and special Rt. S8 Disneyland Resort Pier and Airport (via Tung Chung), truncate Rt. N11, NA11 and NA12 to Central Ferry Piers and Rts. A20, A21, A22, A23, A25, A26/P, A29/P, N21/A, N23, N26 N29, NA20 and NA29 to Tsuen Wan West Station PTI;
- (c) LWB to truncate Rts. A32, A41/P, A47X, E31, E32/A, E41, E42/P/C, N31, N42/A to Tsuen Wan West Station PTI, truncate Rts. A33/X, A34, A36, A37, A43/P, E33/P, E36/A/P/S, E37/C, E43 and N30 to Wu Chui Road westbound outside Tuen Mun Pier Head Bus Terminus, and suspend Rts. A31, A38, NA31, NA32, NA33, NA36, NA37, NA40, NA41, NA43, NA47, R8, R33 and R42;
- (d) GMB operator concerned to strengthen GMB 901(Tung Chung North – Hong Kong Port); and
- (e) DBTSL to strengthen Residents' Service Rts. DB01R (Discovery Bay – Tung Chung), DB02R (Discovery Bay – Airport) and DB03R (Discovery Bay – Sunny Bay).

(4) If the emergency ferry service between Tsuen Wan and Disneyland Resort Pier comes into operation

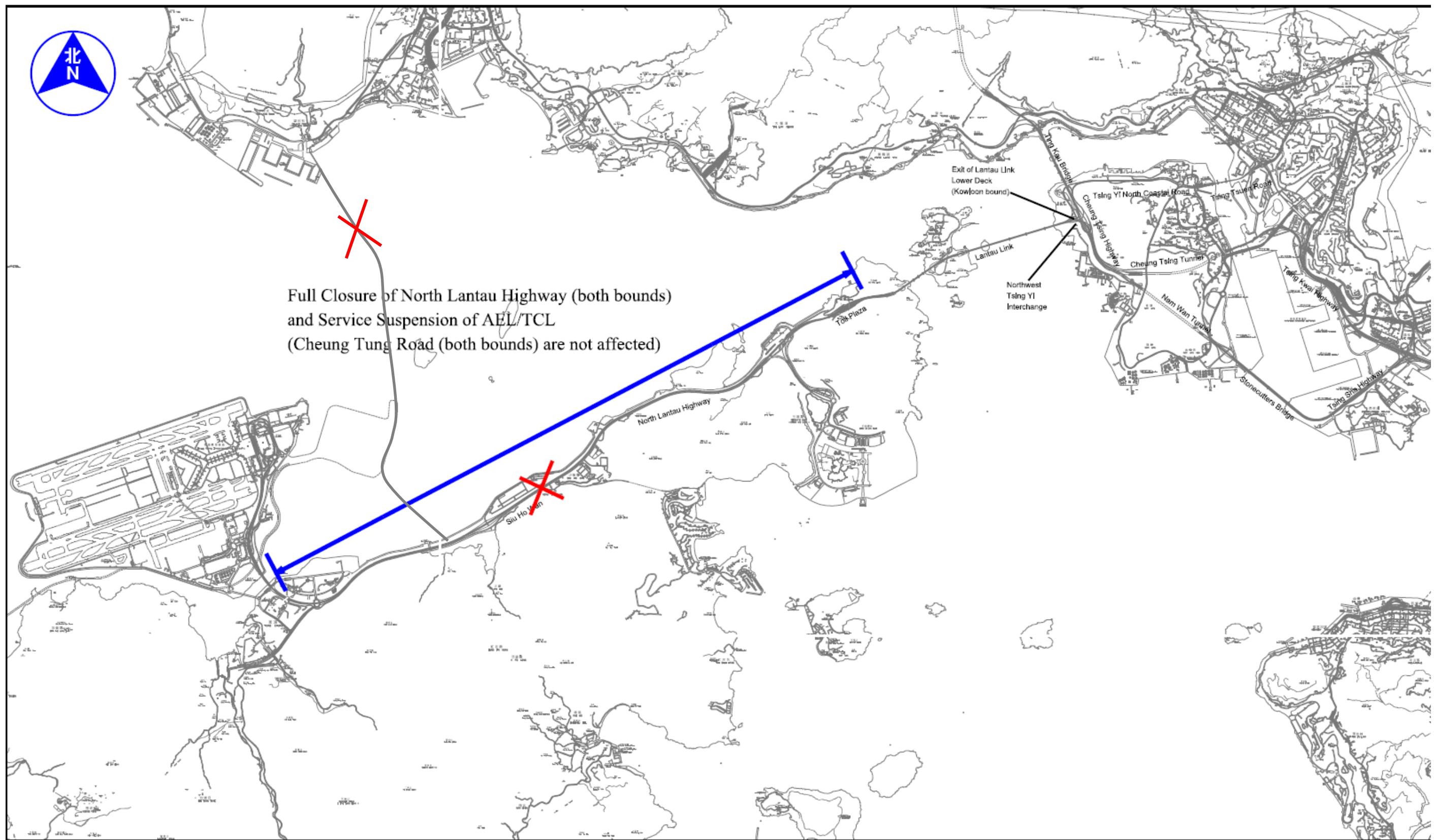
- (a) LWB/CTB to jointly operate a special route no. S8 between Disneyland Resort Pier and Airport (via Tung Chung).

- D. MTRCL, bus and ferry operators concerned to manage the rail stations, Public Transport Interchanges (“PTIs”) and ferry piers concerned (details are provided in paragraph 4.33), and disseminate information to the passengers;

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- E. TD to monitor the traffic and transport situation (“T&T”) with relevant stakeholders, conduct T&T assessment for HLCC, disseminate latest T&T information to the public, convey emergency messages and updated T&T information to relevant stakeholders, and work out with TLB and AAHK on media arrangements other than public announcements;
- F. Police to handle the incident on site, monitor traffic condition, carry out crowd control at piers, major rail stations and PTIs;
- G. FSD to take up the fire-fighting and rescue operations;
- H. MD to regulate marine traffic;
- I. C&ED to maintain normal customs clearance service for arrival passengers and their baggage at Customs checkpoints of Hong Kong International Airport;
- J. ImmD to maintain normal immigration clearance and process necessary formalities to facilitate the crew to perform emergency ferry duty in Hong Kong;
- K. EMSD to keep close liaison with the utility companies and MTRCL and ensure that if electricity and piped gas suppliers are interrupted during an emergency, these companies will, as quickly as practicable, carry out repair works to resume supplies;
- L. CAS to manage order of passengers of emergency ferry services between SkyPier and Central at the concerned Central Ferry Pier(s), Tuen Mun Ferry Pier and PTIs;
- M. TMCA, TM-CLKT and relevant tunnel and control area operators (SHT and TLT operators, MOM contractor of HZMB HKP) to disseminate emergency messages and information via radio break-in and VMS;
- N. HyD to clear and repair the blocked / damaged public roads, make assessment and recommend contingency arrangement if highway including highway structures / street furniture are damaged;
- O. WSD to deal with main burst incidents affecting traffic on major routes;
- P. DSD to clear and repair blocked or damaged public sewers and storm-drains;
- Q. CEDD to deal with landslides, advise on potential dangers due to landslides and measures to deal with them immediately;
- R. DO/Islands to inform local personalities in Lantau Island of the incident and contingency public passenger transport services;
- S. DO/Tsuen Wan to inform local personalities in Ma Wan of the incident and contingency public passenger transport services;
- T. AAHK, HKITP, AWEML, NP360L, HKHA, TIA and TIC to inform visitors of the incidents and assist in crowd management.

Scenario 2 of No Land Link



Scenario 3: Full Closure of North Lantau Highway, Cheung Tung Road and Tuen Mun – Chek Lap Kok Tunnel Road (both bounds) and Service Suspension of AEL&TCL

Contingency Strategies

- A. Strengthen existing ferry service as soon as possible;
- B. Arrange additional emergency ferry services if the road closure is expected to last for more than two hours; and
- C. Truncate the “A” and “E” routes to the nearest ferry piers and strengthen / operate special feeder bus routes and RS routes to carry the passengers to / from their origins and destinations.

Actions to be taken

- A. TD ETCC and TTMS to closely liaise with the Police / TMCA operator / TM-CLKT operator / MTRCL, ferry, bus and RS operators and other relevant parties regarding the traffic situation;
- B. TD ETCC to release the latest traffic news to give appropriate advice to the public through the media and mobile applications, so as to enable passengers to plan their journeys accordingly and minimise the impact on passengers;
- C. TD ETCC to maintain close communication with public transport operators to strengthen the following transport services:

(1) Existing ferry services

- (a) DBTPL to strengthen the licensed ferry service between Central and Discovery Bay and carry out crowd management in the piers;
- (b) Sun Ferry to strengthen the licensed ferry service between Central and Mui Wo and carry out crowd management in the piers;
- (c) Fortune Ferry to strengthen the licensed ferry service of “Tuen Mun - Tung Chung – Sha Lo Wan – Tai O” and carry out crowd management in the piers; and
- (d) PITCL and HKKF to carry out crowd management in their piers.

(2) If the closure is expected to last for over 2 hours

(I) Emergency ferry services

- (a) MBTA to operate emergency ferry service between Tsuen Wan Public Landing Steps Pier and Disneyland Resort Pier upon TD’s request; or
- (b) MBTA to operate emergency ferry service between Tsuen Wan Public Landing Steps Pier and Tung Chung Development Pier upon TD’s request; and
- (c) MBTA to erect signage and will set up queuing arrangement in the relevant piers in paragraph 4.7.

(II) Additional emergency ferry services (upon activation by HLCC)

- (a) AAHK to mobilize eight vessels and TD to mobilize two vessels for operating additional emergency ferry services between SkyPier and Central/ Tuen Mun;
- (b) AAHK to arrange with ImmD crew's eligibility to perform duty;
- (c) AAHK to arrange for berthing operation, signage erection and crowd management in the SkyPier;
- (d) TD to arrange for berthing operation, signage erection and crowd management in the Central Ferry Piers and TMFP;
- (e) At least 3 hours will be required to complete the conversion of SkyPier to local ferry operation, preparation at Central Ferry Piers TMFP, as well as mobilization of the 10 vessels; and
- (f) TD to arrange supporting land transportation.
- (g) The "Star" Ferry Company Limited to spare one berth at Central Pier No. 7 for the operation of the emergency ferry services if necessary, provide assistance in crowd management, and erect/display proper signs at Central Pier No. 7 for the "Central – Tsim Sha Tsui" ferry service. (The last resort.)

(III) Franchised bus services

- (a) CTB to strengthen Rts.S1 and S56 (Tung Chung Station – Airport); divert Rts. S1, S52, S52A and S52P via Tung Chung Development Pier; and suspend B5 (Sunny Bay Station – HZMB (Hong Kong Port));
- (b) LWB to strengthen Rts. S1, S64C and S64P (Tung Chung Station – Ying Tung Estate) and S65; and divert Rts. S1, S64 and N64 via Tung Chung Development Pier;
- (c) NLB to strengthen Rts. A35 (Mui Wo – HZMB (Hong Kong Port)), N35 (Mui Wo – HZMB (Hong Kong Port)) and 3M (Mui Wo – Tung Chung Station Bus Terminus); 37 (Yat Tung Estate – Caribbean Coast) between Tung Chung Development Pier and Tung Chung Station), B4 (Airport) – HZMB (Hong Kong Port) and B6 (Tung Chung (Mun Tung Estate) – HZMB (Hong Kong Port));
- (d) AAHK to provide coach services between SkyPier and the Airport GTC;
- (e) CTB to truncate the A & E routes serving Hong Kong Island to Central Piers as well as CTB/ NWFB to strengthen the bus services to and from the Piers;
- (f) CTB & LWB to truncate the A & E routes from Kowloon and NT East (except North)/ Kwai Tsing/ Tsuen Wan respectively to Tsuen Wan Public Landing Steps Pier; and
- (g) LWB to truncate the A & E routes from Tuen Mun/ Yuen Long/

North to Tuen Mun Ferry Terminal.

(3) If the emergency ferry service between (i)Tsuen Wan and Disneyland Resort Pier; or (ii) Tung Chung Development Pier comes into operation

- (a) MTRCL to maintain AEL service between Airport Station and AsiaWorld-Expo Station, TCL service between Hong Kong Station and Tsing Yi Station and between Tung Chung Station and Sunny Bay Station; and DRL service between Disneyland Resort Station and Sunny Bay Station; to arrange shuttle bus service TE17 plying between Tsing Yi Station and Tsuen Wan West Station as an alternative choice for rail passengers to use the ferry service to Lantau Island as shown in Annex 13(b);
- (b) CTB to suspend Rts. A10, A11, A12, A17, E11/A/S, E21/A/C/X, E22/A/C/P/S/X, E23/A, NA21 and R8; operate special Rt. A12S (Siu Sai Wan - Central Ferry Piers); and special Rt. S8 Disneyland Resort Pier and Airport (via Tung Chung), truncate Rt. N11, NA11 and NA12 to Central Ferry Piers and Rts. A20, A21, A22, A23, A25, A26/P, A29/P, N21/A, N23, N26, N29, NA20 and NA29 to Tsuen Wan West Station PTI;
- (c) LWB to truncate Rts. A32, A41/P, A47X, E31, E32/A, E41, E42/P/C, N31, N42/A to Tsuen Wan West Station PTI, truncate Rts. A33/X, A34, A36, A37, A43/P, E33/P, E36/A/P/S, E37/C, E43 and N30 to Wu Chui Road westbound outside Tuen Mun Pier Head Bus Terminus, and suspend Rts. A31, A38, NA31, NA32, NA33, NA36, NA37, NA40, NA41, NA43, NA47, R8, R33 and R42; and
- (d) GMB operator concerned to strengthen GMB 901(Tung Chung North – Hong Kong Port).

(4) If the emergency ferry service between Tsuen Wan and Disneyland Resort Pier comes into operation

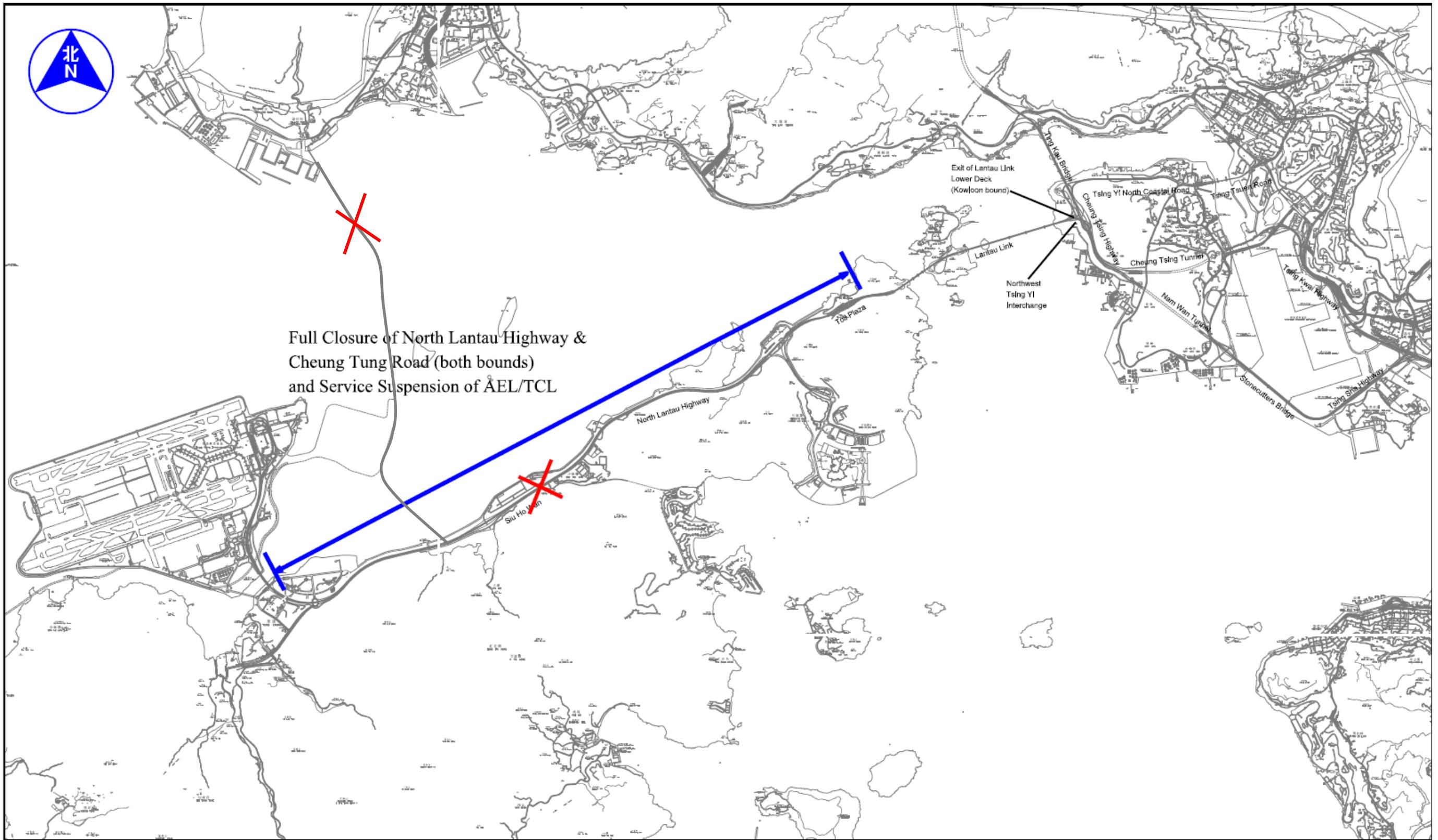
- (a) LWB/CTB to jointly operate a special route no. S8 between Disneyland Resort Pier and Airport (via Tung Chung).

- D. MTRCL, bus and ferry operators concerned to manage the rail stations, Public Transport Interchanges (“PTIs”) and ferry piers concerned (details are provided in paragraph 4.33), and disseminate information to the passengers;
- E. TD to monitor the traffic and transport situation (“T&T”) with relevant stakeholders, conduct T&T assessment for HLCC, disseminate latest T&T information to the public, convey emergency messages and updated T&T information to relevant stakeholders, and work out with TLB and AAHK on media arrangements other than public announcements;
- F. Police to handle the incident on site, monitor traffic condition, carry out crowd control at piers, major rail stations and PTIs;

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- G. FSD to take up the fire-fighting and rescue operations;
- H. MD to regulate marine traffic;
- I. C&ED to maintain normal customs clearance service for arrival passengers and their baggage at Customs checkpoints of Hong Kong International Airport;
- J. ImmD to maintain normal immigration clearance and process necessary formalities to facilitate the crew to perform emergency ferry duty in Hong Kong;
- K. EMSD to keep close liaison with the utility companies and MTRCL and ensure that if electricity and piped gas suppliers are interrupted during an emergency, these companies will, as quickly as practicable, carry out repair works to resume supplies;
- L. CAS to manage order of passengers of emergency ferry services between SkyPier and Central at the concerned Central Ferry Pier(s), Tuen Mun Ferry Pier and PTIs;
- M. TMCA, TM-CLKT and relevant tunnel and control area operators (SHT and TLT operators, MOM contractor of HZMB HKP) to disseminate emergency messages and information via radio break-in and VMS;
- N. HyD to clear and repair the blocked / damaged public roads, make assessment and recommend contingency arrangement if highway including highway structures / street furniture are damaged;
- O. WSD to deal with main burst incidents affecting traffic on major routes;
- P. DSD to clear and repair blocked or damaged public sewers and storm-drains;
- Q. CEDD to deal with landslides, advise on potential dangers due to landslides and measures to deal with them immediately;
- R. DO/Islands to inform local personalities in Lantau Island of the incident and contingency public passenger transport services;
- S. DO/Tsuen Wan to inform local personalities in Ma Wan of the incident and contingency public passenger transport services;
- T. AAHK, HKITP, AWEML, NP360L, HKHA, TIA and TIC to inform visitors of the incidents and assist in crowd management.

Scenario 3 of No Land Link



Section 6

DIVISION OF RESPONSIBILITIES AMONG GOVERNMENT DEPARTMENTS, TRANSPORT OPERATORS and OTHER AGENCIES

Major Division of Responsibilities

- 6.1 In case of emergencies as identified in Section 5 above, the division of responsibilities among parties is as follows:

Responsible Agency	Responsibilities
Transport and Logistics Bureau – PAS(TL)8	<p><u>Transport and Logistics Bureau – HLCC</u></p> <ul style="list-style-type: none">Upon notification by Airport Duty Manager of AA on the activation of Airport Emergency Centre, to alert DS(TL)4 and seek steer from PSL as to whether the HLCC should be established; andGive policy steer as and when required. <p><u>Transport and Logistics Bureau – SPO(TL)</u></p> <ul style="list-style-type: none">Work out with TD and AAHK on media arrangements other than public announcements.
Transport Department (“TD”)	<ul style="list-style-type: none">Escalate TD’s ETCC operation to Tier 3 response (Joint Steering Mode) to handle the incident, if necessary;Coordinate with parties concerned to implement contingency public passenger transport plan;Coordinate with SB/EMSC as appropriate;Monitor information disseminated to the public through ISD and Police Public Relations Branch on the road closures / traffic diversion measures;Conduct traffic and transport impact assessment for HLCC to consider activation of the HKIA NLL Plan;Disseminate emergency messages and updated information to AAHK, HKITP, AWEML, NP360L, major bus/ferry companies, bridge and tunnel operators, HKHA, TIA and TIC;Monitor traffic and transport situation on Lantau Island, Chek Lap Kok, Penny’s Bay, Discovery Bay bus termini/ferry pier, Ma Wan bus termini/ferry pier, Tsuen Wan Public Landing Steps Pier, Tuen Mun Ferry Pier, Tung Chung Development Pier, Central Ferry Piers and nearby roads;Deploy Central Ferry Piers and Tuen Mun Ferry Pier for emergency ferry operations upon activation of the HKIA NLL Plan by HLCC;Arrange ancillary transportation for the emergency ferry operations;Update the HLCC on public passenger transport services,

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Responsible Agency	Responsibilities
	<ul style="list-style-type: none">• emergency ferry services, road traffic and transport situation;• Request Civil Aid Service (“CAS”) for managing order of passengers of emergency ferry services between SkyPier and Central at the concerned Central Ferry Pier(s) and PTIs; and• Request MBTA on the provision of 2 vessels to operate the emergency ferry service between SkyPier and Central piers.
Police	<ul style="list-style-type: none">• Act as the primary responsible department to handle emergency on roads on NLH and access roads to the Airport;• Monitor traffic conditions and assist in implementing the necessary contingency strategies listed in Section 5;• Assess the time needed to clear the scene and resume normal traffic; and• Carry out crowd control at relevant LAR stations, piers and major public transport interchanges particularly those at LAR stations.
Fire Services Department (“FSD”)	<ul style="list-style-type: none">• Coordinate all rescue parties involved in extinguishing fires, protecting life and property in case of fire or other calamity, and emergency rescue work, which includes rendering assistance to people who appear to be in need of immediate medical attention.
DO/Islands	<ul style="list-style-type: none">• Inform local personalities in Lantau Island of the incident and contingency public passenger transport services.
DO/Tsuen Wan	<ul style="list-style-type: none">• Inform local personalities in Ma Wan of the incident and contingency public passenger transport services.
Marine Department (“MD”)	<ul style="list-style-type: none">• Regulate marine traffic if situation requires;• Grant exemption (by the authority of DM via fax/email in emergency) to relax crew rest time restrictions for the High-speed Craft mobilized as emergency ferries; and• To call Hong Kong Police Force (“HKPF”) and Civil Aid Service (“CAS”) for managing order of passengers of emergency ferry services between SkyPier and the concerned TMFP.

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Responsible Agency	Responsibilities
Customs & Excise Department (“C&ED”)	<ul style="list-style-type: none">Maintain normal customs clearance service for arrival passengers and their baggage at Customs checkpoints of Hong Kong International Airport.
Highways Department (“HyD”)	<ul style="list-style-type: none">Clear and repair blocked or damaged public roads, remove dangerous, fallen boulders and dealing with landslips on unallocated Government Land affecting public roads (except for roads maintained by others, e.g. AFCD, DSD, HAD and WSD and military roads). HyD may request GEO to provide geotechnical advice on action to take to deal with these incidents. If necessary, GEO will make an inspection with HyD. GEO provides geotechnical advice upon request and if needed inspects the reported landslide incidents. Priority for landslide inspection will be based on known landslide consequence. Serious landslide incidents, which are major emergency incidents (Category 1 or 2) as defined in ETWB TC(W) No. 20/2005, are given the highest priority, followed by significant landslide incidents (defined as those resulting in damage to property, building evacuation, disruption to traffic or media attention);Inform and update the progress of road repair and clearing works at regular intervals;Suspend road works which affect traffic and immediately allow smooth traffic on alternative / relief routes; andCoordinate repairs to utilities along public roads during emergencies.
Electrical and Mechanical Services Department (“EMSD”)	<ul style="list-style-type: none">Keep close liaison with the utility companies and MTRCL and ensure that if electricity and piped gas suppliers are interrupted during an emergency, these companies will, as quickly as practicable, carry out repair works to resume supplies.
Immigration Department (“IMMD”)	<ul style="list-style-type: none">Maintain normal immigration clearance for arriving and departing passengers at the Hong Kong International Airport; andProcess necessary formalities to facilitate the crew of emergency ferry service to perform duty in Hong Kong.
Civil Aid Service (“CAS”)	<ul style="list-style-type: none">Manage order of passengers of emergency ferry services between SkyPier and Central at the concerned Central Ferry Pier(s), Tuen Mun Ferry Pier and PTIs.

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Responsible Agency	Responsibilities
Water Services Department (“WSD”)	<ul style="list-style-type: none"> Work with TD and all other relevant parties to deal with main burst incidents affecting traffic on major routes.
Drainage Services Department (“DSD”)	<ul style="list-style-type: none"> Clear and repair blocked or damaged public sewers and storm-drains, including engineered sections of open channels, and major stream course, and for ensuring the satisfactory operation of sewage treatment and flood prevention works.
Civil Engineering and Development Department (“CEDD”)	<ul style="list-style-type: none"> Advise government departments on potential dangers due to landslides and on measures to deal with them immediately.
Mass Transit Railway Company Limited (“MTRCL”)	<ul style="list-style-type: none"> Handle the incident and issue alert message to other parties if the incident occurs at Lantau Airport Railway; Disseminate information concerning level of services provide by Lantau Airport Railway; Arrange shuttle bus service (TE17) between Tsing Yi Station and Tsuen Wan West Station as an alternative choice for rail passengers to use the ferry service to Lantau Island; Advise affected Airport Express Line passengers at Kowloon Station to travel to Hong Kong Station via Tung Chung Line and proceed to Central Ferry Pier; and Deploy additional staff to affected stations for crowd control.
Citybus Limited (F2) (“CTB2”) and Long Win Bus Company Limited (“LWB”)	<ul style="list-style-type: none"> Arrange truncation and then cease operation of “A”, “E” and “R” series bus routes; Operate special bus services to the ferry piers concerned in urban areas; Adjust (increase or decrease the headway) existing feeder services to the ferry piers concerned on Lantau Island to suit the prevailing existing and emergency ferry services; Disseminate bus service information to passengers at bus termini, en-route stops, website and mobile apps as appropriate; and Deploy additional staff to bus termini concerned (including those next to ferry piers concerned), to monitor passenger demand and to regulate passenger queue.

Section 6

Responsible Agency	Responsibilities
Kowloon Motor Bus Co. Ltd. (“KMB”), New World First Bus Services Limited (“NWFB”), Citybus Limited (F1) (“CTB1”) and New Lantao Bus Co. Ltd. (“NLB”)	<ul style="list-style-type: none"> • Adjust (increase or decrease the headway) existing feeder services to the ferry piers concerned; • Disseminate bus service information to passengers at bus termini, en-route stops, website and mobile apps as appropriate; and • Deploy additional staff to bus termini concerned (including those next to ferry piers concerned), to monitor passenger demand and to regulate passenger queue.
Discovery Bay Transit Services Limited (“DBTSL”)	<ul style="list-style-type: none"> • Strengthen existing residents’ service between Discovery Bay and Sunny Bay/Tung Chung/ Airport; • Disseminate bus service information to passengers at bus termini, website and mobile apps as appropriate; and • Deploy additional staff to bus termini to monitor passenger demand and to regulate passenger queue.
Discovery Bay Transportation Services Limited (“DBTPL”)	<ul style="list-style-type: none"> • Strengthen existing ferry service between Central and Discovery Bay subject to availability of resources; and • Provide assistance to the berthing operation and the crowd management for the emergency ferry service to/from SkyPier in the Central Pier No.3.
Sun Ferry Services Company Limited (“Sun Ferry”)	<ul style="list-style-type: none"> • Strengthen existing ferry service between Central and Mui Wo subject to availability of resources; • Disseminate ferry service information to passengers at piers, website and mobile apps as appropriate; and • Deploy additional staff to piers to regulate passenger queue.

Section 6

Responsible Agency	Responsibilities
Park Island Transport Co. Ltd. ("PITCL")	<ul style="list-style-type: none">• Strengthen existing ferry services between Central and Ma Wan, and between Tsuen Wan and Ma Wan;• Disseminate ferry service information to passengers at piers, website and mobile apps as appropriate;• Deploy additional staff to piers to regulate passenger queue; and• Provide assistance to the berthing operation and the crowd management for the emergency ferry service to/from SkyPier in the Central Pier No.2.
Hong Kong & Kowloon Ferry Limited ("HKKF")	<ul style="list-style-type: none">• Strengthen existing ferry service between Central and Peng Chau (when the emergency service between Disneyland and Peng Chau is operated);• Provide assistance to the berthing operation and the crowd management for the emergency ferry service to/from SkyPier in the Central Pier No.2;• Disseminate ferry service information to passengers at piers, website and mobile apps as appropriate; and• Deploy staff to piers to regulate passenger queue.
The Star Ferry Company Limited	<ul style="list-style-type: none">• Spare one berth at Central Pier No.7 for the operation of additional emergency ferry service;• Provide assistance to the berthing operation and the crowd management for the emergency ferry service to/from SkyPier in the Central Pier No.7; and• Erect /Display proper signs at Central Pier No. 7 for the Central / Tsim Sha Tsui ferry service.
Fortune Ferry Co. Ltd.	<ul style="list-style-type: none">• Strengthen existing ferry service between Tuen Mun – Tung Chung – Sha Lo Wan – Tai O and allow CKS and TurboJET to carry out emergency local ferry operation to and from SkyPier at the Tuen Mun Ferry Pier if necessary; and• Provide assistance to the berthing operation and the crowd management for the emergency ferry service to/from SkyPier in the TMFP.

Section 6

Responsible Agency	Responsibilities
Hong Kong & Kowloon Motor Boats & Tug Boats Association Ltd. ("MBTA")	<ul style="list-style-type: none">• Operate emergency ferry service between Tsuen Wan and Disneyland Resort Pier or Tung Chung Development Pier;• Disseminate ferry service information to passengers at piers, website and mobile apps as appropriate;• Deploy staff to piers in Central, Tuen Mun, Tsuen Wan, Tung Chung and Disneyland to regulate passenger queue;• Provide 2 vessels to operate the emergency ferry service between SkyPier and Central piers; and• To erect signage to piers in Central, Tuen Mun, Tsuen Wan, Tung Chung and Disneyland.

Section 6

Responsible Agency	Responsibilities
Airport Authority Hong Kong (“AAHK”)	<ul style="list-style-type: none">• Consider activating Airport Emergency Centre (AEC). AEC to liaise with TLB and TD on potential contingency arrangement;• Advise on estimated airport passenger and staff travel demand;• Liaise with TurboJET and Chu Kong Passenger Transport Co. Ltd. (CKS) to mobilise emergency vessels;• Provide the list of TurboJET and CKS ferries mobilized for emergency use to MD for granting exemption in crew rest time restrictions;• Set up emergency pick-up and drop-off points in PTB, GTC and SkyPier;• Assist in traffic control on Airport Island;• Coordinate with airport service providers/contractors (e.g. AVSECO / trolley contractor);• Disseminate information to airport community (e.g. airlines, and Airport-related Organisations, AAHK staff members, passengers etc);• Assist crowd control in PTB, GTC and SkyPier;• Carry out traffic management at Departure Kerb;• Provide porter services at emergency pick-up and drop-off points at GTC; and• Upon receiving TD’s notification and/or updates on Emergency Public Passenger Transport Services, AAHK will disseminate information on the special traffic arrangements for the airport at appropriate times through various channels. AAHK will also disseminate information on contingency public passenger transport services by its LED display board at the Arrival Hall, by public announcement in the Ground Transportation Centre / Arrival Hall at regular intervals, by airport staff at the central ramp making verbal announcements to all the passengers, and by written notice boards.

Section 6

Responsible Agency	Responsibilities
Tsing Ma Control Area Operator (“TMCA Operator”)	<ul style="list-style-type: none"> • Implement contingency traffic management measures within TMCA according to the contingency strategies and the operating guidelines of variable message signs; • Clear the scene and resume normal traffic in TMCA, including Lantau Link and the section of NLH between Sunny Bay Station and Lantau Toll Plaza; • Update the traffic situation in TMCA to TD; and • Issue alert messages to parties concerned if the incident occurs within TMCA.
Tuen Mun – Chek Lap Kok Tunnel (“TM-CLKT Operator”)	<ul style="list-style-type: none"> • Implement contingency traffic management measures within TM-CLKT according to the contingency strategies and the operating guidelines of variable message signs; • Clear the scene and resume normal traffic in TM-CLKT between Tuen Mun and the Hong Kong-Zhuhai-Macao Bridge Hong Kong Port (“HKP”); • Update the traffic situation in TM-CLKT to TD; and • Issue alert messages to parties concerned if the incident occurs within TM-CLKT.
Hong Kong Hotels Association (“HKHA”)	<ul style="list-style-type: none"> • Disseminate TD’s emergency messages to alert its members of the latest traffic and transport situation.
Travel Industry Authority (“TIA”) and Travel Industry Council (“TIC”)	<ul style="list-style-type: none"> • Disseminate TD’s emergency messages to alert their licensees and members of the latest traffic and transport situation.
Hong Kong International Theme Parks Ltd. (“HKITP”)	<ul style="list-style-type: none"> • Disseminate information on emergency traffic and transport arrangements to visitors and hotel guests; • Consider introducing measures to take pressure off the public transport system, e.g. delaying opening or closing time of the Park; and • Implement crowd and traffic control at the Disneyland PTI and Pier.

Section 6

Responsible Agency	Responsibilities
Asia World-Expo Management Limited (“AWEML”)	<ul style="list-style-type: none"> • Disseminate information on emergency traffic and transport arrangements to visitors and exhibitors; • Consider introducing measures to take pressure off the public transport system, e.g. delaying opening or closing time of the Exhibition / Convention / Concert / Entertainment Event; and • Implement crowd and traffic control at the AWE.
Ngong Ping 360 Limited (“NP360L”)	<ul style="list-style-type: none"> • Disseminate information on emergency traffic and transport arrangements to visitors; • Consider introducing measures to take pressure off the public transport system, e.g. delaying opening or closing time of the cable car; and • Implement crowd and traffic control at Tung Chung terminal.
Hong Kong Port (“HKP”) MOM Contractor	<ul style="list-style-type: none"> • Assist in handling incidents on HKP; • Implement crowd control at the PTIs, the Passenger Clearnace Building and the Vehicle Clearanace Plaza at HKP; • Handle stacking passengers at the northern PTI at the HKP; • Disseminate information on emergency traffic and transport arrangements to visitors at the PTIs on HKP; and • Alert and keep the Police informed of the utilization of the taxi queuing area.
HKP Domestic Car Park Operator	<ul style="list-style-type: none"> • Take corresponding actions when there is overflow of private car / light goods vehicle at domestic car park; and • Inform the ETCC of TD by phone within 3 minutes when parking spaces has reached 85% of the total number of the parking spaces at domestic car park.
Scenic Hill Tunnel (“SHT”) Operator	<ul style="list-style-type: none"> • Monitor the traffic conditions at SHT; and • Respond to and report incidents within SHT according to established operating procedures in this action checklist; and • Arrange radio break-in and / or VMS messages for the respective tunnel users to alert the motorists of the latest traffic and transport situation.

Section 6

Responsible Agency	Responsibilities
Tai Lam Tunnel (“TLT”), other relevant tunnel and control area Operators	<ul style="list-style-type: none">• Arrange radio break-in and / or VMS messages for the respective tunnel users to alert the motorists of the latest traffic and transport situation.

Transport Department
August 2023

Existing and Enhanced Ferry, Bus and Residents' Services to Lantau Island or Chek Lap Kok

(I) Ferry Services

White	Existing service
Green	Enhanced service

Route	Operating hours	Frequency	No. of Vessel (Vessel capacity)	Operator
Central – Mui Wo	24 hours	10 – 50 mins (peak) 40 – 60 mins (off peak) 2 hrs 15 mins – 4 hr 10 mins (overnight)	Regular vessels: 3 vessels (556-563 passengers) 3 vessels (423-435 passengers) 1 vessel (231 passengers)	Sun Ferry
Central – Mui Wo	To enhance the service by adding 1 vessel (1252 passengers) by deploying triple deck ferry subject to availability of resources			Sun Ferry
Central – Peng Chau	24 hours	15 – 50 mins (peak) 30 – 55 mins (off peak) 1 hr 50 mins – 4 hr 10 mins (overnight)	Regular vessels: 1 vessel (399 passengers) 1 vessel (397 passengers) 1 vessel (381 passengers) 1 vessel (374 passengers)	HKKF
Central – Peng Chau	To be enhanced subject to availability of resources			HKKF
Central – Discovery Bay	Mon – Fri (except public holidays): 6.00 a.m. – 12.30 a.m. Sat, Sun & public holidays: 6.00 a.m. – 1.00 a.m.	15 – 20 mins (peak) 30 mins. (off peak)	2 vessels (300 passengers) 6 vessels (500 passengers)	DBTPL
Central – Discovery Bay	Subject to availability of resources, the headway may be strengthened from 30 mins to 15/20 mins			DBTPL
Tuen Mun – Tung Chung – Sha Lo Wan – Tai O	7.00 a.m. – 7.30 p.m.	<u>Mon to Fri:</u> <u>8 regular sailings + 6 short-working trips between Tuen Mun (TM) & Tung Chung (TC)</u> <u>Sat*:</u> <u>9 regular sailing + 6 short-working trips between TM & TC</u> <u>Sun & PH*:</u> <u>11 regular sailing + 4 short-working trips between TM & TC</u> <u>* Remarks: Not more than 8 (on Sat) & (on Sun / PHs) additional sailings would be provided subject to passenger demand</u>	Regular vessel 1 vessel (94 passengers)	Fortune Ferry
Tuen Mun – Tung Chung – Sha Lo Wan – Tai O	To enhance the section between Tuen Mun and Tung Chung by adding 1 vessel (90 passengers) subject to availability of resources			Fortune Ferry
Central – Ma Wan	6.30 a.m. – 11.30 pm	15 – 30 mins (peak) 60 mins (off peak)	Regular vessels: 2 vessels (402 passengers) 2 vessels (223 passengers)	Park Island Transport
Tsuen Wan – Ma Wan	10.15 a.m. – 4.35 p.m.	From Ma Wan: 10.15 am, 1.15 pm & 4.15 pm From Tsuen Wan: 10.35 am, 1.35 pm & 4.35pm		

(II) Bus Services

White	Service unchanged under NLL
Green	Service enhanced under NLL
Blue	Service truncated at ferry piers under NLL
Grey	Service suspended under NLL

Unchanged	Enhanced	Truncated	Suspended	Route	Operating hours	Frequency	Capacity	Operator
Hong Kong Island								
			✓	A10 (Ap Lei Chau (Lee Lok Street) – Airport (Ground Transportation Centre)) <i>Suspended</i>	05:30 a.m. to 10:30 p.m. (From Ap Lei Chau (Lee Lok Street)) 06:50 a.m. to 12:20 a.m. (From Airport)	30 mins	8 DD buses of capacity not exceeding 114	CTB
			✓	A11 (North Point Ferry Pier – Airport (Ground Transportation Centre)) <i>Suspended, Replaced by A12S</i>	05:10 a.m. to 08:50 p.m. (From North Point Ferry Pier PTI) 08:10 a.m. to 00:15 a.m. (From Airport)	15 – 30 mins	13 DD buses of capacity not exceeding 120 (a.m.) 15 DD buses of capacity not exceeding 120 (p.m.)	CTB
			✓	A12 (Siu Sai Wan (Island Resort) – Airport (Ground Transportation Centre)) <i>Suspended, Replaced by A12S</i>	5.30 a.m. – 10:30 p.m. (From Siu Sai Wan) 06:00 a.m. to 12:10 a.m. (From Airport)	20 – 45 mins	11 DD buses of capacity not exceeding 120	CTB
		✓		A12S (Siu Sai Wan – Central Ferry Piers) <i>Merging A11, A12 & E11</i>	5.15 a.m. – 12.00 midnight	30 mins	9 DD buses of capacity not exceeding 109 9 DD buses of capacity not exceeding 114	CTB
			✓	A17 (Shum Wan Public Transport Terminus – Airport (Ground Transportation Centre)) [Route temporarily suspended] <i>Suspended</i>	05:30 a.m. to 8:30 p.m. (From Shum Wan Public Transport Terminus) 11:30 a.m. to 11:30 p.m. (From Airport)	60 mins	3 DD buses of capacity not exceeding 120 (a.m.) 4 DD buses of capacity not exceeding 120 (p.m.)	CTB
			✓	E11 (Causeway Bay (Tin Hau) – AsiaWorld-Expo) <i>Suspended, Replaced by A12S</i>	Mon – Fri 5.20 a.m. – 12.40 pm (From Tin Hau) 5:20 a.m. – 7:20 a.m., and 4:30pm – 00:00 midnight (From AWE) Sat, Sun & PHs 5.20 a.m. – 12.40 pm (From Tin Hau) 4:30 pm – 00:00 midnight (From AWE)	20 – 40 mins	8 DD buses of capacity not exceeding 132 (a.m.) 4 DD buses of capacity not exceeding 132 (p.m.)	CTB

Unchanged	Enhanced	Truncated	Suspended	Route	Operating hours	Frequency	Capacity	Operator
			✓	E11A (Causeway Bay (Tin Hau) – AsiaWorld-Expo) <i>Suspended, Replaced by A12S</i>	Mon – Fri 1.00 p.m. – 12.00 midnight (From Tin Hau) Sat, Sun & PHs 1.20 p.m. – 12.00 midnight (From Tin Hau) 5:20 a.m. – 4:00 p.m. (From AWE)	35 – 40 mins	1 DD buses of capacity not exceeding 132 (a.m.) 3 DD buses of capacity not exceeding 132 (p.m.)	CTB
			✓	E11S (Mun Tung Estate (Mun Wo House) – Causeway Bay (Tin Hau)) <i>Suspended, Replaced by A12S</i>	Mon - Fri 9 departures to Tin Hau from 6.20 a.m. to 7.45 a.m.	9 departures	8 air-conditioned double decker of capacity not exceeding 132 for Route E11S (a.m.)	CTB
		✓		N11 (Central (Macau Ferry Pier) – Airport (Ground Transportation Centre)) <i>Truncated at Central Ferry Pier</i>	1.20 a.m. – 4.20 a.m. (from Macau Ferry) 1.50 a.m. – 4.50 a.m. (from Airport)	60 mins	3 DD buses of capacity not exceeding 114 Air-conditioned double deckers of capacity not exceeding 141 may be deployed for substitution to operate this route.	CTB
		✓		NA11 (North Point Ferry Pier Public Transport Interchange – Hong Kong Port of Hong Kong-Zhuhai-Macao Bridge PTI) <i>Truncated at Central Ferry Pier</i>	4.50 a.m. (from North Point) 1.00 a.m. (from HZMB) 1.10 a.m. (from Airport)	3 departures	2 DD bus of capacity not exceeding 141	CTB
		✓		NA12 (Siu Sai Wan (Island Resort) – Hong Kong Port of Hong Kong-Zhuhai-Macao Bridge PTI) <i>Truncated at Central Ferry Pier</i>	4:50 a.m.	1 departure	1 DD bus of capacity not exceeding 141	CTB
Kowloon								
		✓		A20 (Hung Hom – Airport (Ground Transportation Centre)) [Route temporarily suspended] <i>Truncated at Tsuen Wan West Station PTI</i>	6.30 a.m. – 9.30 p.m. (from Hung Hom) 11.00 a.m. – 12.00 midnight (from Airport (Ground Transportation Centre))	60 mins	2 DD buses of capacity not exceeding 120 (a.m.) 4 DD buses of capacity not exceeding 120 (p.m.)	CTB
		✓		A21 (Hung Hom – Airport (Ground Transportation Centre)) <i>Truncated at Tsuen Wan West Station PTI</i>	5.15 a.m. – 12.00 Midnight (from Hung Hom) 7.00 a.m. – 12.00 Midnight (from Airport (Ground Transportation Centre))	12-30 mins	25 DD buses of capacity not exceeding 120 (a.m.) 27 DD buses of capacity not exceeding 120 (p.m.)	CTB

Unchanged	Enhanced	Truncated	Suspended	Route	Operating hours	Frequency	Capacity	Operator
		✓		A22 (Lam Tin – Airport (Ground Transportation Centre)) <i>Truncated at Tsuen Wan West Station PTI</i>	5.30 a.m. – 8.00 p.m. (from Lam Tin) 9.45 a.m. – 23.45 p.m. (from Airport (Ground Transportation Centre))	20-30 mins	14 DD buses of capacity not exceeding 141 (a.m.) 15 DD buses of capacity not exceeding 141 (p.m.)	CTB
		✓		A23 (Tsz Wan Shan (North) – Airport (Ground Transportation Centre)) <i>Truncated at Tsuen Wan West Station PTI</i>	8.10 a.m. – 8.10 p.m. (from Tsz Wan Shan) 11.10 a.m. – 00.10 a.m. (from Airport (Ground Transportation Centre))	30 mins	6 DD buses of capacity not exceeding 120 (a.m.) 8 DD buses of capacity not exceeding 120 (p.m.)	CTB
		✓		A25 (Kai Tak – Airport (Ground Transportation Centre)) <i>Truncated at Tsuen Wan West Station PTI</i>	8.10 a.m. – 8.10 p.m. (from Kai Tak) 10.00 a.m.–12.00 Midnight (from Airport (Ground Transportation Centre))	30 mins	5 DD buses of capacity not exceeding 120 (a.m.) 7 DD buses of capacity not exceeding 120 (p.m.)	CTB
		✓		A26 (Yau Tong – Airport (Ground Transportation Centre)) <i>Truncated at Tsuen Wan West Station PTI</i>	6.30 a.m. – 8.30 p.m. (from Yau Tong) 11.45 a.m. – 11.45 p.m. (from Airport (Ground Transportation Centre))	60 mins	3 DD buses of capacity not exceeding 140	CTB
				A26P (Yau Tong to Airport (via Cathay City)) <i>Truncated at Tsuen Wan West Station PTI</i>	6.00 a.m. 7.00 a.m. (A26P)	2 departures (A26P)	2 DD buses of capacity not exceeding 140	
			✓	E21 (Tai Kok Tsui (Island Harbourview)) - AsiaWorld-Expo <i>Suspended</i>	5.30 a.m. – 3.50 p.m. (from Tai Kok Tsui) 2.10 p.m. to 12.00 midnight (from AWE)	12 – 30 mins	13 DD buses of capacity not exceeding 132 during morning peak 13 DD buses of capacity not exceeding 132 during evening peak DD buses of capacity not exceeding 141 will be deployed for substitution	CTB
			✓	E21D (Tai Kok Tsui (Island Harbourview)) - AsiaWorld-Expo <i>Suspended</i>	4.10 p.m. – 12.00 midnight (from Tai Kok Tsui) 5.30 a.m. – 1.50 p.m. (from AWE)	15 – 30 mins		
			✓	E21A (Ho Man Tin (Oi Man Estate) –Tung Chung (Yat Tung Estate) Bus Terminus)* <i>Suspended</i>	7.30 a.m. – 3.50 p.m. (from Ho Man Tin) 2.10 a.m. – 10.00 p.m. (from Tung Chung)	20 – 30 mins	9 DD buses of capacity not exceeding 132 during morning peak 9 DD buses of capacity not exceeding 132 during evening peak (1 DD bus is re-deployed from Route E22 during morning peak)	CTB
			✓	E21B (Ho Man Tin (Oi Man Estate) – Tung Chung (Yat Tung Estate) Bus Terminus) <i>Suspended</i>	4.10 p.m. – 11.50 p.m. (from Ho Man Tin) 5.40 a.m. – 1.50 p.m. (from Tung Chung)	20 – 30 mins	DD buses of capacity not exceeding 141 will be deployed for substitution	

Unchanged	Enhanced	Truncated	Suspended	Route	Operating hours	Frequency	Capacity	Operator
			✓	E21C (Tai Kok Tsui (Island Harbourview)) – Airport (Aircraft Maintenance Area)) <i>Suspended</i>	6.30 a.m. (from Tai Kok Tsui) 6.05 p.m. (from Airport)	-	1 DD bus of capacity not exceeding 132 during morning peak 1 DD bus of capacity not exceeding 132 during evening peak DD buses of capacity not exceeding 141 will be deployed for substitution	CTB
			✓	E21X (Tung Chung (Mun Tung Estate) to Hung Hom Station) <i>Suspended</i>	Mon - Sat 7.48 a.m.	-	1 DD bus of capacity not exceeding 132 (1 DD bus is re-deployed from route A21 in morning peak) (1 DD bus is re-deployed from route A22 in morning peak) DD buses of capacity not exceeding 141 will be deployed for substitution.	CTB
			✓	E22 (Lam Tin (North) – AsiaWorld-Expo) <i>Suspended</i>	5.30 a.m. – 12.00 midnight	10 – 30 mins	14 DD buses of capacity not exceeding 141 (a.m.) 15 DD buses of capacity not exceeding 141 (p.m.)	CTB
			✓	E22P (Yau Tong PTI – AsiaWorld-Expo) <i>Suspended</i>	6:50 a.m. to 7:20 a.m. (from Yau Tong) 5:35 p.m. to 6:05 p.m. (from AsiaWorld-Expo)	15 – 30 mins	3 DD buses of capacity not exceeding 141 (a.m.) 2 DD buses of capacity not exceeding 141 (p.m.)	CTB
			✓	E22X(Yau Tong PTI – AsiaWorld-Expo) <i>Suspended</i>	6:54 a.m. to 7:24 a.m. (from Yau Tong) 5:42 p.m. to 6:12 p.m. (from AsiaWorld-Expo)	15 – 30 mins	3 DD buses of capacity not exceeding 141 (a.m.) 2 DD buses of capacity not exceeding 141 (p.m.)	CTB
			✓	E23 (Tsz Wan Shan (South) - Airport (Ground Transportation Centre)) E23A (Tsz Wan Shan (South) - Airport (Ground Transportation Centre) (via Tung Chung North)) <i>Suspended</i>	5.25 a.m. – 12.52 a.m. (from Tsz Wan Shan (South)) 1.10 p.m. – 12.00 midnight (from Airport) 1.07 p.m. – 12.00 a.m. (from Tsz Wan Shan (South)) 5.30 a.m. – 12.45 p.m. (from Airport)	10 – 20 mins 15 – 20 mins	17 DD buses of capacity not exceeding 132	CTB
			✓	N21 (Star Ferry – Airport (Ground Transportation Centre)) Truncated at Tsuen Wan West Station PTI	1.30 a.m. – 5.10 a.m. (from Star Ferry) 12.20 a.m. – 4.40 a.m. (from Airport)	30-60 mins	9 DD buses of capacity not exceeding 132	CTB
			✓	N21A (Tsim Sha Tsui (Star Ferry) - Airport (Ground Transportation Centre)) Truncated at Tsuen Wan West Station PTI	12.10 a.m. – 1.10 a.m. (from Star Ferry) 5.00 a.m. (from Airport)	2 departures (from Star Ferry) 1 departure (from Airport)	9 DD buses of capacity not exceeding 132	CTB

Unchanged	Enhanced	Truncated	Suspended	Route	Operating hours	Frequency	Capacity	Operator
		✓		N23 (Tsz Wan Shan (North) – Tung Chung Station Bus Terminus) <i>Truncated at Tsuen Wan West Station PTI</i>	3.35 a.m., 4.35 a.m., 5.05 a.m. (from Tsz Wan Shan) 12.15 a.m., 1.10 a.m. (from Tung Chung)	5 departures	3 DD buses of capacity not exceeding 141	CTB
		✓		N26 (Yau Tong PTI –Tung Chung Station Bus Terminus) <i>Truncated at Tsuen Wan West Station PTI</i>	4.30 a.m., 5.00 a.m., 5.25 a.m. (from Yau Tong) 12.20 a.m. (from Tung Chung)	4 departures	3 DD buses of capacity not exceeding 141	CTB
		✓		NA20 (Whampoa Garden –Hong Kong-Zhuhai-Macao Bridge (Hong Kong Port) Public Transport Interchange [Route temporarily suspended] <i>Truncated at Tsuen Wan West Station PTI</i>	4.30 a.m. (from Whampoa Garden) 12.25 a.m. (from HZMB(HKP))	2 departures	1 low floor DD bus of capacity not exceeding 120	CTB
			✓	NA21 (Hong Kong Port of Hong Kong-Zhuhai-Macao Bridge PTI to Tai Kok Tsui (Hoi Fai Road)) <i>Suspended</i>	12:40 a.m. 1:15 a.m.	2 departures	2 low floor DD bus of capacity not exceeding 125 Vehicles fitted with luggage racks and with provision for wheelchair bound passengers DD buses of capacity not exceeding 141 will be deployed for substitutions	CTB

NT East								
		✓		A29 (Tsueng Kwan O (Po Lam PTI) – Airport (Ground Transportation Centre)) <i>Truncated at Tsuen Wan West Station PTI</i>	5.15 a.m. – 9.15 p.m. (from Tseung Kwan O) 8.40 a.m. – 12.10 a.m. (from Airport (Ground Transportation Centre))	30 mins	6 DD buses of capacity not exceeding 141	CTB
		✓		A29P (Tseung Kwan O Station PTI – Airport (Ground Transportation Centre)) <i>Truncated at Tsuen Wan West Station PTI</i>	5.40 a.m., 7.10 a.m., 9.50 a.m. – 8.50 p.m. (from Tseung Kwan O) 11.15 a.m. – 12.15 a.m. (from Airport (Ground Transportation Centre))	60 mins	1 DD bus of capacity not exceeding 141	CTB
		✓		A41 (Sha Tin (Yu Chui Court) –Airport (Ground Transportation Centre)) <i>Truncated at Tsuen Wan West Station PTI</i>	5.30 a.m. – 11.30 p.m. (from Sha Tin) 5.30 a.m. – 12.00 midnight (from Airport)	15 – 60 mins	12 DD buses of capacity not exceeding 134	LWB
		✓		A41P (Wu Kai Sha Railway Station –Airport (Ground Transportation Centre)) <i>Truncated at Tsuen Wan West Station PTI</i>	5.20 a.m. – 10.45 p.m. (from Wu Kai Sha) 7.05 a.m. – 12.00 midnight (from Airport (Ground Transportation Centre))	15 – 60 mins	9 DD buses of capacity not exceeding 134	LWB

Unchanged	Enhanced	Truncated	Suspended	Route	Operating hours	Frequency	Capacity	Operator
		✓		A47X (Tai Po (Fu Heng) – Airport (Ground Transportation Centre)) <i>Truncated at Tsuen Wan West Station PTI</i>	5.00 a.m. – 8.30 p.m. (from Tai Po (Fu Heng)) 4.05 a.m. – 8.05 p.m. (from Airport)	30 mins	6 DD buses of capacity not exceeding 131	LWB
		✓		E22A (Tseung Kwan O (Hong Sing Garden) – AsiaWorld-Expo) <i>Suspended</i>	5.20 a.m. – 9.20 p.m. (from Tseung Kwan O) 7.00 a.m. – 11.50 p.m. (from Tsuen Wan West)	25 – 30 mins	8 DD buses of capacity not exceeding 132	CTB
		✓		E22C (Tseung Kwan O (Tiu King Leng Station PTI) – Airport) <i>Suspended</i>	6.20 a.m. (from Tseung Kwan O) 6.05 p.m. (from Airport)	---	1 DD buses of capacity not exceeding 132	CTB
		✓		E22S (Tung Chung (Yat Tung PTI) – Tsueng Kwan O (Po Lam PTI)) <i>Suspended</i>	7:13 a.m. 7:28 a.m. (from Yat Tung Estate)	---	1 DD buses of capacity not exceeding 132	CTB
		✓		E41 (Tai Po Tau – AsiaWorld-Expo) <i>Truncated at Tsuen Wan West Station PTI</i>	5.15 a.m. – 12.00 midnight (from Tai Po Tau) 5.30 a.m. – 12.00 midnight (from AsiaWorld-Expo)	9 – 25 mins 12 – 25 mins	14 DD buses of capacity not exceeding 134	LWB
		✓		E42 (Sha Tin (Pok Hong) – Airport (Ground Transportation Centre)) <i>Truncated at Tsuen Wan West Station PTI</i>	5.30 a.m. – 12.00 midnight	8 – 20 mins	19 air-conditioned double deckers of capacity not exceeding 134	LWB
		✓		E42C (Sha Tin (Pok Hong) - Aircraft Maintenance Area)	Mondays to Fridays (Except Public Holidays) 06:05 a.m. 06:08 p.m. 06:25 a.m. 08:08 p.m.	4 departures		LWB
		✓		E42P (Tung Chung (Yat Tung Estate Public Transport Terminus) to Sha Tin (Pok Hong))	Mondays to Fridays (except Public Holidays) 06:45 a.m. 07:05 a.m. 07:30 a.m. 07:50 a.m. Saturdays (except Public Holidays) 06:45 a.m. 07:30 a.m. 07:50 a.m.	7 depature		LWB
		✓		N29 (Tseung Kwan O (Hong Sing Garden) - Tung Chung Station Bus Terminus) <i>Truncated at Tsuen Wan West Station PTI</i>	3.50 a.m., 4.50 a.m. (from Tseung Kwan O) 12.15 a.m., 1.00 a.m. (from Tung Chung)	4 departures	3 DD buses of capacity not exceeding 141	CTB

Unchanged	Enhanced	Truncated	Suspended	Route	Operating hours	Frequency	Capacity	Operator
		✓		N42 (Ma On Shan (Yiu On) - Tung Chung Station Bus Terminus) Truncated at Tsuen Wan West Station PTI	4.50 a.m. (from Ma On Shan) 12.20 a.m. (from Tung Chung)	2 departures	1 air-conditioned double decker of capacity not exceeding 134 1 air-conditioned double decker of capacity not exceeding 134 redeployed from route E42	LWB
		✓		NA29 (Tseung Kwan O (Po Lam PTI) –Airport) Truncated at Tsuen Wan West Station PTI	4.15 a.m. 5.05 a.m. (from Po Lam) 12.30 a.m. 1.00 a.m. (from Airport)	4 departures	2 low floor DD bus of capacity not exceeding 141	CTB
		✓		NA40 (Hong Kong-Zhuhai-Macao Bridge (Hong Kong Port) Public Transport Interchange – Wu Kai Sha Station) Suspended	03.40 a.m. 04.10 a.m. 04.40 a.m. (from Wu Kai Sha Station) 00.35 a.m. 01.15 a.m. 01.35 a.m. (from HZMB(HKP))	6 departures	3 DD buses of capacity not exceeding 131	LWB
		✓		NA41 (Hong Kong-Zhuhai-Macao Bridge (Hong Kong Port) Public Transport Interchange – Sha Tin (Shui Chuen O)) Suspended	04:10 a.m. (from Sha Tin (Shui Chuen O)) 01:15 a.m. (from HZMB(HKP))	2 departures	1 DD buses of capacity not exceeding 131	LWB
		✓		NA47 (Hong Kong-Zhuhai-Macao Bridge (Hong Kong Port) Public Transport Interchange – Tai Po (Fu Heng)) Suspended	12:25 a.m. (from HZMB(HKP)) 04:25 a.m. (from Tai Po (Fu Heng))	2 departures	1 DD buses of capacity not exceeding 134	LWB
NT West – Tsuen Wan and Kwai Tsing								
		✓		A31 (Tsuen Wan (Nina Tower) – Airport (Ground Transportation Centre)) Suspended	5.20 a.m. –12.00 midnight (from Tsuen Wan) 5.30 a.m. –12.00 midnight (from Airport)	15-30 mins	12 DD buses of capacity not exceeding 134	LWB
		✓		A32 (Kwai Chung Estate PTI — Airport (Ground Transportation Centre)) [Route temporarily suspended] Truncated at Tsuen Wan West Station PTI	5.30 a.m. – 10.00 p.m. (from Kwai Chung Estate) 6.00 a.m. – 12.00 midnight (from Airport)	30-60 mins	7 DD buses of capacity not exceeding 134	LWB
		✓		A38 (Tsuen Wan (Allway Gardens) – Airport (Ground Transportation Centre)) [Route temporarily suspended] Suspended	5.35 a.m., 6.35 p.m., 7.35 p.m. (from Tsuen Wan (Allway Gardens))	50-120 mins	3 DD buses of capacity not exceeding 134	LWB

Unchanged	Enhanced	Truncated	Suspended	Route	Operating hours	Frequency	Capacity	Operator
					9.05 a.m. – 11.55 p.m. (from Airport)			
		✓		E31 (Tsuen Wan (Discovery Park Bus Terminus) –Tung Chung (Yat Tung Estate Public Transport Terminus)) Truncated at Tsuen Wan West Station PTI	5:35 a.m. – 12.00 midnight (from Tsuen Wan (Discovery Park Bus Terminus)) 5.30 a.m. –12.00 midnight (from Tung Chung)	12 – 25 mins	10 DD buses of capacity not exceeding 134	LWB
		✓		E32 (Kwai Chung (Container Port Road) Public Transport Interchange – AsiaWorld-Expo) Truncated at Tsuen Wan West Station PTI E32 (Special Departure Via Tsing Yi Central and Tsing Yi South) E32 (Special Departure Via Sky City Road East)	5.15 a.m. – 12.00 midnight (from Kwai Chung) 5.30 a.m. – 12.00 a.m. (from AsiaWorld-Expo) 10.00 a.m. – 03.40 p.m. (from Kwai Chung) 9.50 a.m. – 03.30 p.m. (from AsiaWorld-Expo) Mondays to Fridays (except Public Holidays) 05:23 p.m. - 06:30 p.m. Saturdays (except Public Holidays) 05:30 p.m. - 06:30 p.m. (from AsiaWorld-Expo)	10 – 20 mins 11 – 30 mins 20 mins 20 mins 11-15 mins 15 mins	12 DD buses of capacity not exceeding 134	LWB
		✓		E32A (Kwai Chung (Container Port Road) Public Transport Interchange to Tung Chung Development Pier Truncated at Tsuen Wan West Station PTI	5.40 a.m. – 12.00 midnight. (from Kwai Chung)	15 - 30 mins	9 DD buses of capacity not exceeding 134	LWB
		✓		N31 (Tsuen Wan (Discovery Park Bus Terminus) –Airport (Ground Transportation Centre)) Truncated at Tsuen Wan West Station PTI	12.25 a.m. – 4.55 a.m. (from Discovery Park) 12.30 a.m. – 5.00 a.m. (from Airport)	45 mins	5 air-conditioned double deckers of capacity not exceeding 141	LWB
			✓	NA31 (Hong Kong-Zhuhai-Macao Bridge (Hong Kong Port) Public Transport Interchange – Tsuen Wan (Nina Tower)) Suspended	4:00 a.m., 4:30 a.m., 4:55 a.m. (from Tsuen Wan) 12:25 a.m., 1:05 a.m. (from Hong Kong-Zhuhai-Macao Bridge (Hong Kong Port) Public Transport Interchange)	5 departures	3 DD buses of capacity not exceeding 134	LWB

Unchanged	Enhanced	Truncated	Suspended	Route	Operating hours	Frequency	Capacity	Operator
			✓	NA32 (Hong Kong-Zhuhai-Macao Bridge (Hong Kong Port) Public Transport Interchange – Kwai Chung Estate PTI) <i>Suspended</i>	4:15 a.m., 4:55 a.m. (from Kwai Chung) 12:35 a.m., 1:10 a.m. (from Hong Kong-Zhuhai-Macao Bridge (Hong Kong Port) Public Transport Interchange)	4 departures	3 DD buses of capacity not exceeding 134	LWB
NT West – Tuen Mun, Yuen Long, Tin Shui Wai and North District								
		✓		A33 Tuen Mun Road Bus-Bus Interchange (Kowloon bound) – Airport (Ground Transportation Centre) <i>Truncated at Tuen Mun Pier Head Bus Terminus</i>	5.15 a.m. – 10.15 p.m. (from Tuen Mun Road Bus-Bus Interchange (Kowloon bound)) 7.50 a.m. – 12.00 midnight (from Airport)	20-60 mins	6 DD buses of capacity not exceeding 134	LWB
		✓		A33X (Tuen Mun (Fu Tai) – Airport (Ground Transportation Centre)) <i>Truncated at Tuen Mun Pier Head Bus Terminus</i>	5.00 a.m. – 11.45 p.m. (from Tuen Mun (Fu Tai)) 5.45 a.m. – 12.00 midnight (from Airport)	20-60 mins	6 DD buses of capacity not exceeding 134	LWB
		✓		A34 Hung Shui Kiu (Hung Yuen Road) - Airport (Ground Transportation Centre) <i>Truncated at Tuen Mun Pier Head Bus Terminus</i>	5.20 a.m. – 10.30 p.m. (from Hung Shui Kiu (Hung Yuen Road)) 9.00 a.m. – 12.00 midnight (from Airport)	20-60 mins	7 DD buses of capacity not exceeding 134	LWB
		✓		A36 (Yuen Long (Long Ping Station (North) Public Transport Interchange) – Airport (Ground Transportation Centre)) <i>Truncated at Tuen Mun Pier Head Bus Terminus</i>	5.10 a.m. – 11.30 p.m. (from Yuen Long (Long Ping Station (North) Public Transport Interchange)) 5.15 a.m. – 12.00 midnight (from Airport)	20-60 mins	9 DD buses of capacity not exceeding 134	LWB
		✓		A37 (Hung Shui Kiu (Hung Yuen Road) - Airport (Ground Transportation Centre)) <i>Truncated at Tuen Mun Pier Head Bus Terminus</i>	5.00 a.m. – 10.30 p.m. (Hung Shui Kiu (Hung Yuen Road)) 9.00 a.m. – 12.00 midnight (from Airport)	20-30 mins	7 DD buses of capacity not exceeding 134	LWB

Unchanged	Enhanced	Truncated	Suspended	Route	Operating hours	Frequency	Capacity	Operator
		✓		A43 (Fanling (Luen Wo Hui) – Airport (Ground Transportation Centre)) Truncated at Tuen Mun Pier Head Bus Terminus	5.10 p.m. – 1.40 p.m. (from Fanling) 6.30a.m., 12.00 midnight (from Airport)	15-60 mins	18 air-conditioned double deckers of capacity not exceeding 134	LWB
		✓		A43P (Fanling (Luen Wo Hui) – Airport (Ground Transportation Centre)) (via Lok Ma Chau) Truncated at Tuen Mun Pier Head Bus Terminus	5.30 p.m. – 10.40 p.m. (from Fanling) 4.30 p.m. – 12.00 midnight (from Airport)	25-30 mins		LWB
		✓		E33 (Tuen Mun Central Bus Terminus – Airport (Ground Transportation Centre)) Truncated at Tuen Mun Pier Head Bus Terminus	5.20 a.m. to 12.00 midnight (from Tuen Mun) 5.30 a.m. to 12.00 midnight (from Airport)	6-20 mins	11 air-conditioned double deckers of capacity not exceeding 134	LWB
		✓		E33P (Siu Hong Station (South) – Airport (Ground Transportation Centre)) Truncated at Tuen Mun Pier Head Bus Terminus	5.15 a.m. to 7.00 p.m. (from Siu Hong) 2.30 p.m. to 12.00 midnight (from Airport)	12-30 mins 20-35 mins	7 air-conditioned double deckers of capacity not exceeding 134	LWB
		✓		E36 (Yuen Long (Pat Heung Road) - Airport (GTC)) Truncated at Tuen Mun Pier Head Bus Terminus	0505-2400 hrs	20-30 mins	14 air-conditioned double deckers of capacity not exceeding 141	LWB
		✓		E36P (Yuen Long (Sheung Tsuen) - Airport (Ground Transportation Centre)) Truncated at Tuen Mun Pier Head Bus Terminus	Mondays to Fridays (except Public Holidays) 5:10 a.m. 5:40 p.m. 6:10 a.m. 6:10 p.m.	4 departures		LWB
		✓		E36S (Yuen Long ((Ma Wang Road) - Airport (Ground Transportation Centre)) Truncated at Tuen Mun Pier Head Bus Terminus	0530-1900 hrs	15-30 mins		LWB
		✓		E36A (Yuen Long (Tak Yip Street) – Tung Chung (Yat Chung Estate Public Transport Terminus)) Truncated at Tuen Mun Pier Head Bus Terminus	0540-2310 hrs	25-30 mins	6 air-conditioned double deck bus of capacity not exceeding 141	LWB
		✓		E37 (Tin Shui Wai Town Centre - Airport (GTC)) Truncated at Tuen Mun Pier Head Bus Terminus	0510-2400 hrs	12-25 mins	20 air-conditioned double deckers of capacity not exceeding 141	LWB
		✓		E37C (Tin Shui Wai Town Centre - Aircraft Maintenance Area) Truncated at Tuen Mun Pier Head Bus Terminus	Mondays to Fridays (except Public Holidays) 06:00 a.m. 06:20 a.m. 05:07 p.m.	5 departures		LWB

Unchanged	Enhanced	Truncated	Suspended	Route	Operating hours	Frequency	Capacity	Operator
					06:07 p.m. 08:07 p.m.			
		✓		E43 (Fanling (WahMing) - Tung Chung Development Pier) Truncated at Tuen Mun Pier Head Bus Terminus	Mondays to Fridays (except Public Holidays) 6.00 a.m and 7.00 a.m. (from Fanling) 17.30 p.m. and 18.30 p.m. (from Airport)	4 departures	2 air-conditioned double deckers of capacity not exceeding 141	LWB
		✓		N30 (Yuen Long Station – Airport (Cheong Tat Road)) Truncated at Tuen Mun Pier Head Bus Terminus	3.25 a.m and 4.00 a.m. (from Yuen Long Station) 12.20 a.m. and 1.10 a.m. (from Airport)	4 departures	2 air-conditioned double deckers of capacity not exceeding 141	LWB
		✓		N42A (Fanling Luen Wo Hui –Tung Chung Station Bus Terminus) Truncated at Tuen Mun Pier Head Bus Terminus	12.20 a.m. (from Tung Chung) 4.00 a.m. (from Fanling)	2 departures	1 DD bus of capacity not exceeding 134	LWB
			✓	NA33 (Airport (Cathay Pacific City) – Tuen Mun (Fu Tai)) Suspended	1232 a.m., 0107 a.m., 0132 a.m. and 0215 a.m. (from Airport (Cathay Pacific City)) 0345 a.m., 0405 a.m. and 0430 a.m. (from Tuen Mun (Fu Tai))	7 departures	6 DD buses of capacity not exceeding 134	LWB
			✓	NA36 (Yuen Long (Kam Sheung Road Station) – Airport (Cathay Pacific City)) Suspended	3:45 a.m. 4:15 a.m. 4:35 a.m. 4:55 a.m. (from Kam Sheung Road Station) 0:10 a.m. 0:40 a.m. 1:10 a.m. 1:40 a.m. 2:10 a.m. 2:30 a.m. (from Cathay Pacific City)	10 departures	6 DD buses of capacity not exceeding 141	LWB
			✓	NA37 (Tin Shui Wai Town Centre - Hong Kong-Zhuhai-Macao Bridge (Hong Kong Port) Public Transport Interchange) Suspended	Departures at 3.25 a.m., 3.55 a.m., 4. 20 a.m.and 4.40 a.m. from Tin Shui Wai Town Centre Depatures at 12.35 a.m., 1.10 a.m., 1.45 a.m., and 2.25 a.m.	8 departures	1 DD buses of capacity not exceeding 134	LWB

Unchanged	Enhanced	Truncated	Suspended	Route	Operating hours	Frequency	Capacity	Operator
			✓	NA43 (Hong Kong-Zhuhai-Macao Bridge (Hong Kong Port) Public Transport Interchange – Fanling (Luen Wo Hui)) <i>Suspended</i>	4:05 a.m. 4:45 a.m. (from Fanling (Luen Wo Hui)) 1:10 a.m. (from HZMB(HKP))	3 departures	3 DD buses of capacity not exceeding 134	LWB
Within Lantau Island								
✓				S52 (Tung Chung (Yat Tung Estate PTT) – Airport (Aircraft Maintenance Area))	5.28 a.m. – 11.28 p.m. (From Tung Chung) 5.52 a.m. – 11.52 p.m. (From Airport (Aircraft Maintenance	18 – 20 mins	4 air-conditioned double deckers of capacity not exceeding 132.	CTB
✓				S52A (Tung Chung North (Wai Tung Road) – Airport (Asia Airfreight Terminal))	6.20 a.m. and 7.15 a.m. (from Tung Chung North) 5.05 p.m. (from Airport)	3 departures	1 air-conditioned double decker of capacity not exceeding 132 re-deployed from Route S52 during peak hours.	CTB
✓				S52P (Tung Chung (Yat Tung Estate PTI to Airport (Asia Airfreight Terminal) (Circular))	Mon-Sat 7.18 a.m., 7.38 a.m., 7.58 a.m., 8.18 a.m., 8.38 a.m., & 8.58 a.m.	6 departures	1 air-conditioned double decker of capacity not exceeding 132.	CTB
✓	✓			S56 (Tung Chung Station Bus Terminus – Airport (Passenger Terminal Building)) (Circular)	5.50 a.m. – 12.00 midnight	20 – 45 mins	2 air-conditioned double deckers of capacity not exceeding 132. (a.m.)	CTB
						Enhancement: 30 mins	Enhancement: 2 DD buses of capacity not exceeding 132	
✓				S64 (Tung Chung (Yat Tung Estate PTT) – Airport (Passenger Terminal Building)) (via Tung Chung Station Bus Terminus) (Circular))	Mon – Sat 9.08 a.m. – 12.00 midnight Sun & PHs 8.15 a.m. – 12.00midnight	10 – 15 mins 12-15 mins	8 air-conditioned double deck buses of capacity not exceeding 134.	LW
✓				S64X (Tung Chung (Yat Tung Estate PTT) – Airport (Passenger Terminal Building)) (Circular))	Mon – Sat 5.10 a.m. – 9.00 a.m. Sun & PHs 5.10 a.m. – 8.00 a.m.	10 – 20 mins		LW
✓				S64C (Tung Chung (Yat Tung Estate PTI) – Airport (Cargo and Catering Area)) (Circular)) S64C (Chun Wan Road to Yat Tung Estate PTT)	Mon – Sat 5.20 a.m. – 8.56 a.m. Sun & PHs 5.20 a.m. – 8.00 a.m. Mon – Sat 3.08 p.m. – 6.49 p.m.	12 – 15 mins 20 mins 13 mins		LW

Unchanged	Enhanced	Truncated	Suspended	Route	Operating hours	Frequency	Capacity	Operator	
	✓			S64P (Tung Chung (Ying Tung Estate) – Airport (Cargo and Catering Area))	Mon – Fri 7.20 a.m., 8.20 a.m., 3:45 p.m. and 6:45 p.m. Sat 7.20 a.m., 8.20 a.m., 6.45 p.m. Sun & PHs 7.20 a.m. 6.45 p.m.	N.A.		LW	
						Enhancement: Subject to passenger demand and availability of buses	Enhancement: 3 DD buses of capacity not exceeding 128 (peak)		
	✓			S65 (Tung Chung (Mun Tung Estate) - Airport (Passenger Terminal Building) (Circular)) Special departures of route S65 omitting Chung Yan Road	Mon to Sat (except PHs) 5.20 a.m. – 8.40 a.m. Sun and PHs 5.20 a.m. to 8.00 a.m.	20-30 mins 20-30 mins	2 DD buses of capacity not exceeding 134	LW	
✓				N64 (Airport (Ground Transportation Centre) – Tung Chung (Yat Tung Estate) (via Tung Chung Station Bus Terminus))	12.50 a.m. – 1.20 a.m.	30 mins	2 DD buses of capacity not exceeding 134	LW	
	✓			S1 (Tung Chung Station Bus Terminus – AsiaWorld-Expo (via Passenger Terminal Building)) (Circular)	5.30 a.m. – 12.00 midnight	Mon to Sat (except PH) 5 – 10 mins Sun and PHs 7-10 mins	3 DD buses of capacity not exceeding 114 (CTB) 3 DD buses of capacity not exceeding 134 (LW)	CTB/LW	
				R8 (Disneyland Resort PTI – Lantau Link Toll Plaza (Circular))		Enhancement: 6 mins (peak) 7 – 8 mins (off peak)	Enhancement: 3 DD buses of capacity not exceeding 114 (CTB) 3 DD buses of capacity not exceeding 131 (LW)		
✓				A35 (Mui Wo – HZMB (Hong Kong Port))	06:00 a.m. to 12:05 a.m.	15 – 30 mins	2 DD buses of capacity not exceeding 141	CTB/LW	
	✓				5.30 a.m. –12.15 a.m. (from Mui Wo) 6.15 a.m. – 11.30 p.m. (from HZMB (Hong Kong Port))	From Mui Wo 5.30 a.m. 7.25 a.m. 5.00 p.m. 10.00 p.m. 12.15 a.m.	From HZMB (Hong Kong Port) 6.15 a.m. 6.40 a.m. 8.30 a.m. 6.15 p.m. 11.30 p.m.	2 SD buses of capacity not exceeding 67	NLB

Unchanged	Enhanced	Truncated	Suspended	Route	Operating hours	Frequency	Capacity	Operator
						Enhancement: Subject to passenger demand and availability of buses	Enhancement: Buses to be redeployed from other routes Peak capacity: 240 passengers/hour/direction Off peak capacity: 360 passengers/hour/direction	
	✓			N35 (Mui Wo – HZMB (Hong Kong Port))	3.15 a.m. – 4.20 a.m. (from Mui Wo) 1.30 a.m. – 4.30 a.m. (from HZMB (Hong Kong Port))	From Mui Wo 3.15 a.m. 4.20 a.m. From HZMB (Hong Kong Port) 1.30 a.m. 4.30 a.m.	2 SD buses of capacity not exceeding 67	NLB
✓				3M (Mui Wo – Tung Chung Station Bus Terminus)	Mon – Sat 6.00 a.m. – 11.45 p.m. (from Mui Wo) 6.00 a.m. – 12.50 a.m. (from Tung Chung) Sun & PHs 6.20 a.m. – 11.45 p.m. (from Mui Wo) 6.00 a.m. – 12.50 a.m. (from Tung Chung)	5 – 50 mins	10 DD buses of capacity not exceeding 88	NLB
✓				11 (Tai O – Tung Chung Temporary Bus Terminus)	5.15 a.m. – 12.15 a.m. (from Tai O) 6.20 a.m. – 1.20 a.m. (from Tung Chung)	5 mins – 45 mins	Mon – Sat 12 SD buses of capacity not exceeding 67 Sun & PHs 14 SD buses of capacity not exceeding 67	NLB
✓				11A Tung Chung Temporary Bus Terminus	Sat, Sun & PHs 9.40 a.m. – 5.15 p.m. (from Tung Chung) 10.30 a.m. – 6.35 p.m. (from Shek Pik)	---	3 SD buses of capacity not exceeding 67	NLB
✓				11S (Tung Chung Temporary Bus Terminus To Tai O)	9:00 a.m. 2:30 p.m.	---	1 SD buses of capacity not exceeding 71	NLB

Unchanged	Enhanced	Truncated	Suspended	Route	Operating hours	Frequency	Capacity	Operator
✓				13S (Mui Wo To Tung Chung Temporary Bus Terminus)	10:05 a.m. 03:05 p.m.	---	1 SD buses of capacity not exceeding 71	NLB
✓				23 (Tung Chung Temporary Bus Terminus To Ngong Ping)	8.10 a.m. – 7.10 p.m. (from Tung Chung) 7.15 a.m. – 6.10 p.m. (from Ngong Ping)	---	Mon – Sat 8 SD buses of capacity not exceeding 67 Sun & PHs 11 SD buses of capacity not exceeding 67	NLB
✓				23S(Tung Chung Temporary Bus Terminus To Ngong Ping)	09:30 a.m. 02:30 p.m.	---	1 SD buses of capacity not exceeding 71	NLB
✓				34 (Tung Chung Temporary Bus Terminus To Shek Mun Kap)	7.30 a.m. – 9.45 p.m. (from Tung Chung) 7.55 a.m. – 10.15 p.m. (from Shek Mun Kap)	---	2 SD buses of capacity not exceeding 29	NLB
✓				36 (Tung Chung Tat Tung Road Bus Terminus to Siu Ho Wan Vehicles Detention Pound)	<u>Mon to Sat (except PH)</u> 7.45 a.m., 10.00 a.m., 5.15 p.m. and 7.30 p.m. (from Tung Chung) 7.58 a.m., 10.13 a.m., 5.30 p.m. and 7.43 p.m. (from Siu Ho Wan) <u>Sun and PH</u> 7.45 a.m., 10.00 a.m., 2.30 p.m., 5.15 p.m. and 7.30 p.m. (from Tung Chung) 7.58 a.m., 10.13 a.m., 2.43 p.m. 5.30 p.m. and 7.43 p.m. (from Siu Ho Wan)	<u>Mon to Sat</u> (except PH) 8 departures <u>Sun and PH</u> 10 departures	1 SD buses of capacity not exceeding 69	NLB
	✓			37 (Tung Chung (Yat Tung Estate PTT) - Tung Chung North (Ying Tung Estate)) <u>Special Departures Route No. 37</u> Tung Chung (Yat Tung Estate Public Transport Terminus) To Tung Chung North (Ying Tung Estate) via Chung Mun Road And Chung Yat Street	Mon – Fri (except PH and School Holidays) 6.40 a.m. – 12.15 a.m. (from Tung Chung (Yat Tung)) 9.34 a.m. – 12.15 a.m. (from Tung Chung North) Sat, Sun & PHs 6.40 a.m. – 12.20 a.m. (from Tung Chung (Yat Tung)) 9.10 a.m. – 12.20 a.m. (from Tung Chung North)	5 – 30 mins 10-30 mins 20-30 mins 20-30 mins	Mon – Fri 7 SD buses of capacity not exceeding 69 Sat, Sun & PHs 4 SD buses of capacity not exceeding 69	NLB

Unchanged	Enhanced	Truncated	Suspended	Route	Operating hours	Frequency	Capacity	Operator	
					<u>Special Departures</u> <u>Mon – Fri (except PH and School Holidays)</u> 11.35 a.m.; 3.35 p.m. – 4.15 p.m. (from Tung Chung (Yat Tung)) 6.55 a.m. – 12.05 p.m. (from Tung Chung North) <u>Sat, Sun & PHs</u> 7.10 a.m. – 8.50 a.m. (from Tung Chung North)	10-15 mins 20 mins			
						Enhancement: About 12 additional trips in an hour in one direction	Enhancement: 5-6 additional buses (capacity not exceeding 70) to be added Peak capacity: 500 passengers/hour/direction Off peak capacity: 700 passengers/hour/direction Night capacity: 400 passengers/hour/direction		
✓				37H (Tung Chung (North Lantau Hospital) – Tung Chung North (Ying Tung Estate))	7.00 a.m. – 12.00 midnight (from North Lantau Hospital) 6.30 a.m. – 11.30p.m. (from Tung Chung North)	20 – 30 mins	3 SD buses of capacity not exceeding 75	NLB	
✓				37M (Tung Chung Station – Tung Chung North (Ying Tung Estate)) (Circular)	<u>Mon - Fri</u> 5.40 a.m. – 12.50 a.m. <u>Sat, Sun, PHs</u> 6.10 a.m. – 12.48 a.m.	5 – 12 mins 10-12mins	5 air-conditioned double decker of capacity not exceeding 130	NLB	
✓				37P (Tung Chung Yat Tung Estate (Yu Tung Road) – Tung Chung North (Caribbean Coast)* Morning Special Service (one-way))	<u>Mon - Fri</u> 7.35 a.m. – 8.15 a.m. From Tung Chung (Yat Tung) (No service on Sat, Sun, School Holidays & PHs)	3 – 5 mins	1 air-conditioned double deck bus of capacity not exceeding 127 and 6 air-conditioned single deck buses (4 buses are re-deployed from Routes 11 and Route 23) of capacity not exceeding 63.	NLB	
✓				37S (Tung Chung Development Pier to Tung Chung Station Bus Terminus)	<u>Sat, Sun and PH</u> 11.50 a.m., 1.50 p.m., 3.50 p.m. and 4.30 p.m.	4 departures	1 DD bus of capacity not exceeding 69	NLB	
✓				38 (Tung Chung (Yat Tung Estate PTT) to Tung Chung Station Bus Terminus (Circular))	<u>Mon - Fri</u> (except PH) 5.30 a.m. – 12.27 a.m. <u>Sat, Sun and PH</u> 5.30 a.m. – 12.27 a.m.	2-7 mins 4-7 mins	10 air-conditioned double deck buses of capacity not exceeding 130 and 1 air-conditioned single deck electric bus of capacity not exceeding 71 during peak hours on Mondays to Fridays except	NLB	

Unchanged	Enhanced	Truncated	Suspended	Route	Operating hours	Frequency	Capacity	Operator
✓				38X (Tung Chung Yat Tung Estate (Yu Tung Road) to Fu Tung (Tat Tung Road)	Mon - Fri 7.00 a.m. – 8.32 a.m.	6-8 mins	school holidays.	NLB
✓				39M (Tung Chung Station Bus Terminus to Mun Tung Estate Bus Terminus (Circular)) Special short working trips will be operated from Mun Tung Estate Bus Terminus to Tung Chung Town Centre Bus Terminus at 5:40 a.m., 5:55 a.m. and 6:10 a.m. on daily basis and 6:26 a.m., 6:41 a.m. and 6:55 a.m. from Mondays to Fridays except Public Holidays.	Mon - Fri 6.10 a.m. – 12.20 a.m. Sat, Sun and PH 6.10 a.m. – 12.20 a.m.	7-15 mins 10-15 mins	4 air-conditioned double deck buses of capacity not exceeding 130	NLB
✓				N37 Tung Chung North (Ying Tung Estate) - Tung Chung Station Bus Terminus (Circular)	1.00 a.m. – 2.00 a.m.	15 mins	1 air-conditioned double deck bus of capacity not exceeding 130.	NLB
✓				N38 Tung Chung North (Yat Tung Estate PTT) - Tung Chung Station Bus Terminus	12.30 a.m. – 5.00 a.m. (from Yat Tung Estate) 12.40 a.m. – 5:10 a.m. (from Tung Chung Station Bus Terminus)	15 -30mins	1 SD bus of capacity not exceeding 70	NLB
✓				1 (Mui Wo – Tai O)	Mon – Sat 6.00 a.m. – 1.10 a.m. (from Mui Wo) 5.00 a.m. – 12.20 a.m. (from Tai O) Sun & PHs 6.30 a.m. – 1.10 a.m. (from Mui Wo) 5.30 a.m. – 12.10 a.m. (from Tai O)	20 – 60 mins	Mon – Sat 8 SD buses of a capacity not exceeding 67 Sun & PHs 10 SD buses of a capacity not exceeding 67	NLB
✓				N1 (Mui Wo – Tai O)	3.45 a.m.	N.A.	1 SD bus of capacity not exceeding 70	NLB
✓				2 (Mui Wo – Ngong Ping)	Mon – Fri 11.00 a.m. – 4.50 p.m. (from Mui Wo) 11.35 p.m. – 6.35 p.m. (from Ngong Ping) Sat 10.30 a.m. – 4.30 p.m. (from Mui Wo) 12.10 p.m. – 6.20 p.m. (from Ngong Ping) Sun & PHs 8.00 a.m. – 5.55 p.m. (from Mui Wo) 7.05 a.m. – 6.45 p.m. (from Ngong Ping)	20 – 150 mins	Mon – Sat 6 SD buses of a capacity not exceeding 67 Sun & PHs 9 SD buses of a capacity not exceeding 67	NLB

Unchanged	Enhanced	Truncated	Suspended	Route	Operating hours	Frequency	Capacity	Operator
✓				21 (Tai O – Ngong Ping)	Mon – Sat 7.45 a.m. – 5.45 p.m. (from Tai O) 7.30 a.m. – 6.15 p.m. (from Ngong Ping) Sun & PHs 7.45 a.m. – 5.45 p.m. (from Tai O) 7.30 a.m. – 6.30 p.m. (from Ngong Ping)	30 – 185 mins	2 SD buses of capacity not exceeding 66	NLB

(III) Residents' Services

Route	Operating hours	Frequency	Capacity	Operator
Existing service				
DB01R (Discovery Bay – Tung Chung)	5.30 a.m. – 1.00 a.m. (from Discovery Bay) 6.00 a.m. – 1.30 a.m. (from Tung Chung)	10 – 30 mins	5 DD buses of capacity not exceeding 127 2 SD buses of capacity not exceeding 81 (Additional departures operated by double-deck buses of capacity not exceeding 127 may be deployed subject to demand)	DBTSL
DB02R (Discovery Bay – Airport) (Circular)	24 hours	30 – 60 mins	2 SD buses of capacity not exceeding 49	DBTSL
DB03R (Discovery Bay – Sunny Bay)	6.15 a.m. – 12.20 a.m. (from Discovery Bay) 6.40 a.m. – 1.12 a.m. (from Sunny Bay)	5 – 20 mins	5 DD buses of capacity not exceeding 120 2 SD buses of capacity not exceeding 78 (Additional departures operated by double-deck buses of capacity not exceeding 120 may be deployed subject to demand)	DBTSL
Service enhancement				
DB01R (Discovery Bay – Tung Chung) DB02R (Discovery Bay – Airport) (Circular) DB03R (Discovery Bay – Sunny Bay)	DBTSL can deploy existing available resources to support emergency land transport services provided that its normal residents' service should not be jeopardized. The emergency bus services will serve all residents in North Lantau and no priority will be given to airport passengers and workers. After receiving TD's notification, DBTSL may deploy additional 5 buses within 1 hour and another 3-5 buses within 2 hours.			DBTSL

(IV) Daytime Bus and GMB observing Hong Kong Port

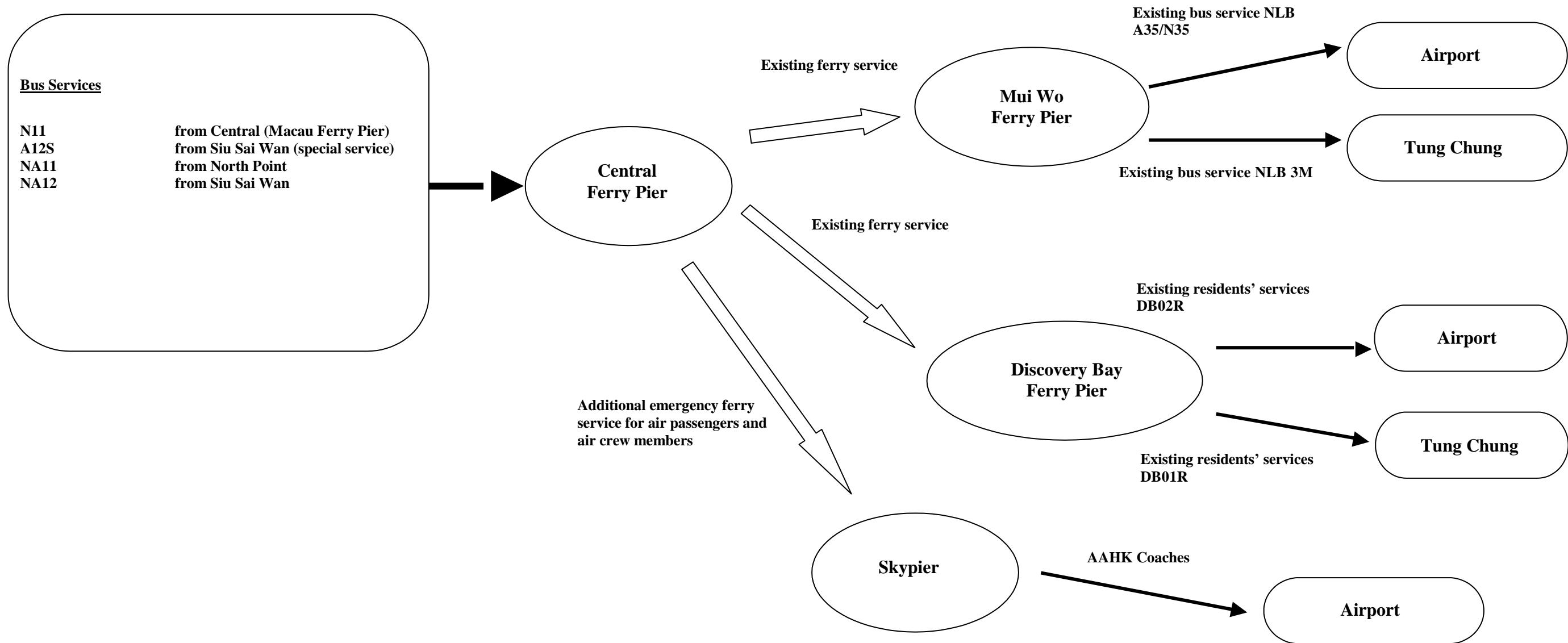
Terminal Point	PT Service	Operating Hours	Basic Frequency (min.)	Single Journey fare (\$)
Airport GTC / North Point Ferry Pier PTI	Citybus Route A11	0510-2415	15-30	40
Airport GTC / Shum Wan Road PTI	Citybus Route A17 [Temporarily Suspended]	0530-2330	60	45
Airport GTC / Hung Hom Station	Citybus Route A21	0515-2400	12-30	33
Airport GTC / Lam Tin Station	Citybus Route A22	0530-2345	20-30	39
Airport GTC / Tsz Wan Shan (N)	Citybus Route A23	0810-2410	30	39
Airport GTC / Kai Tak	Citybus Route A25	0810-2410	30	39
Airport GTC / Po Lam Station	Citybus Route A29	0515-2410	15-60	42
Airport GTC / Tsuen Wan (Nina Tower)	Long Win Route A31	0520-2400	15-30	18.9
Airport GTC / Tuen Mun (Fu Tai Estate)	Long Win Route A33X	0540-2400	20-60	15
HZMB (Hong Kong Port PTI) / Mui Wo Ferry Pier	New Lantao Bus Route A35	0530-0830 (am) 1700-2415 (pm)	5 trips (am) 6 trips (pm)	12.3 / 20.2
Airport GTC / Kam Sheung Station	Long Win Route A36	0510-2400	15-60	18.9
Airport GTC / Sha Tin (Yu Chui Court)	Long Win Route A41	0530-2400	15-60	22.3
HKP PTI / Airport (Circular)	New Lantao Bus Route B4	24 hours	15-30	8.3
HKP PTI/Sunny Bay PTI	Citybus Route B5	0540-0115	15-75	5.8
HKP PTI/ Tung Chung (Mun Tung Estate)	New Lantao Bus Route B6	24 hours	15-30	8.3
HKP PTI/Tung Chung North (Circular)	GMB Route 901	0630-1930	30	8.4

Note: Operating hours and frequency may be adjusted to meet actual passenger demand as and when necessary

Emergency Ferry Services to Lantau Island or Chek Lap Kok

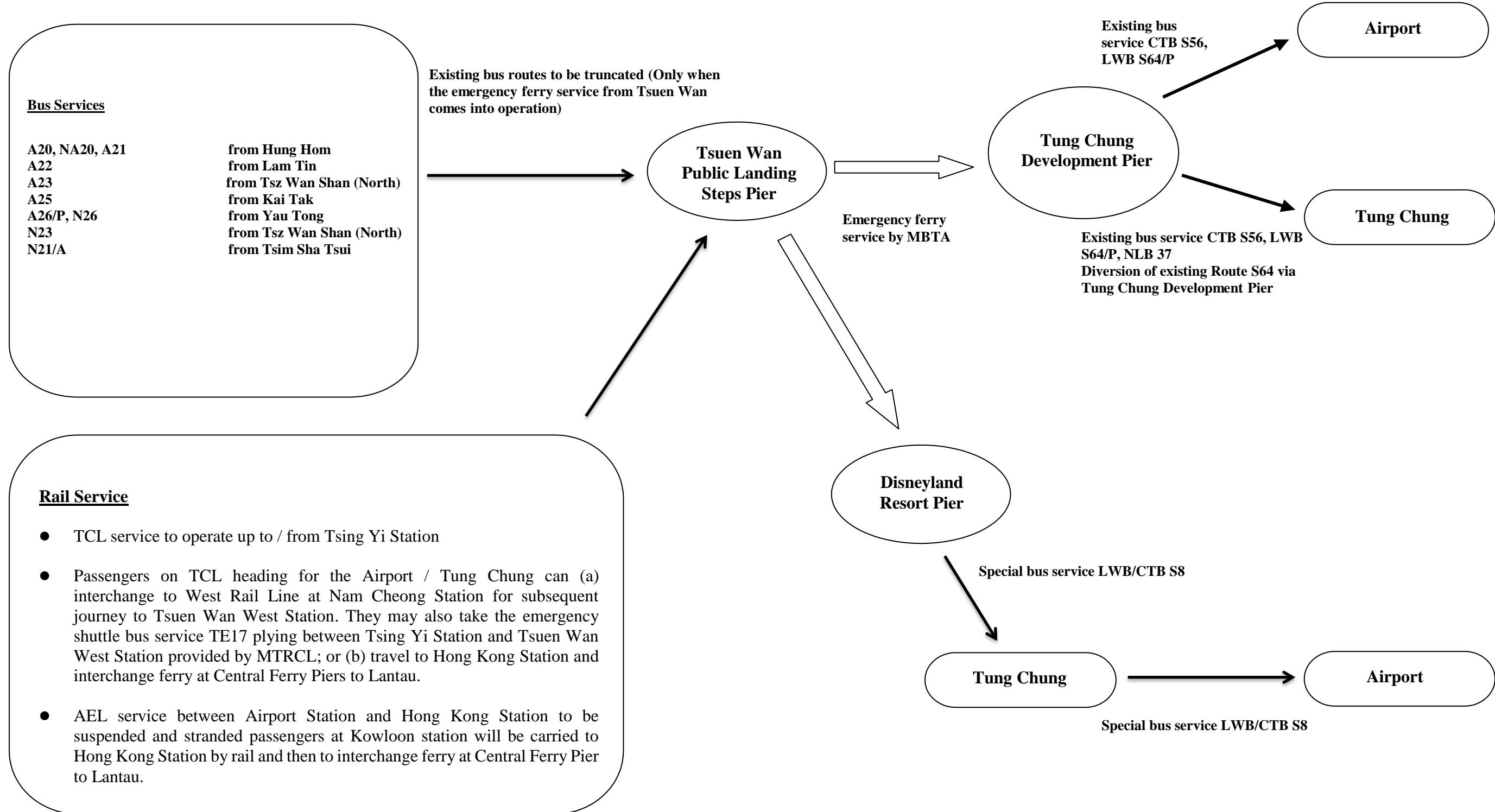
(I) Ferry Services

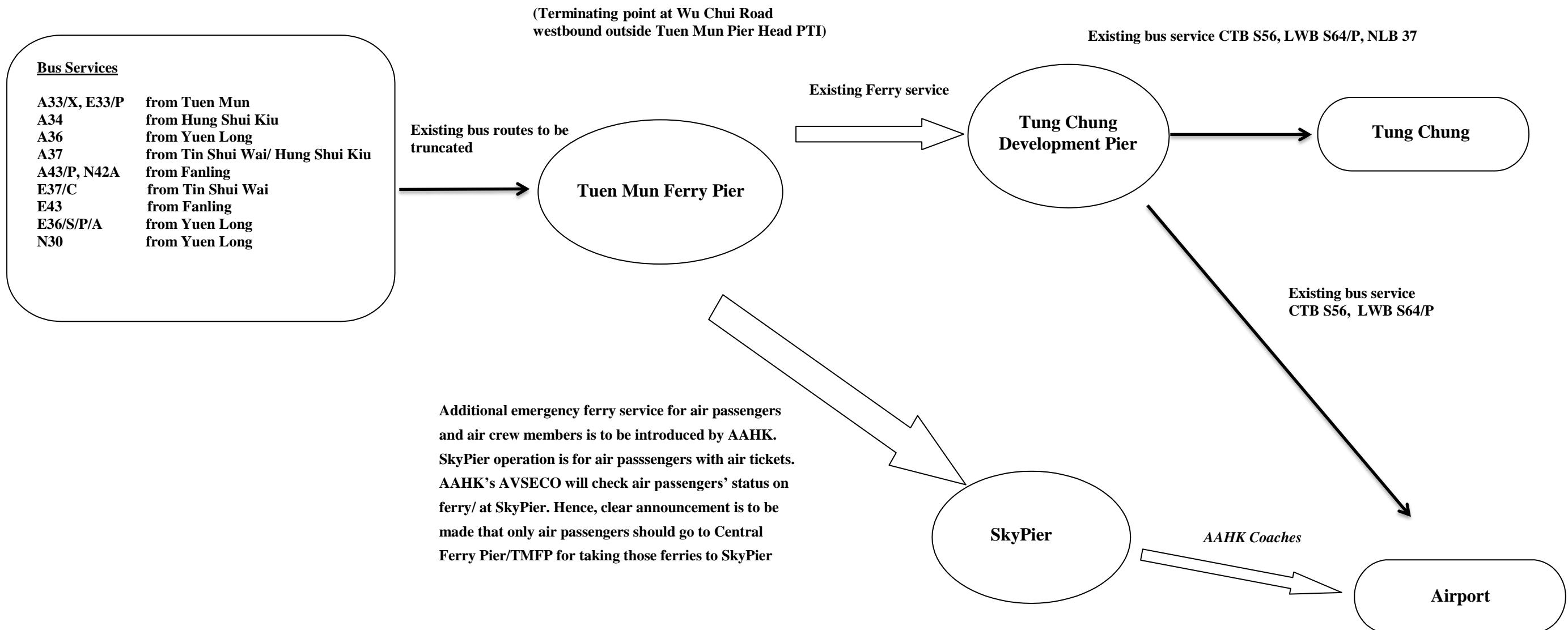
Route	Operating hours	Frequency	No. of Vessel (Vessel capacity)	Operator
Tsuen Wan – Disneyland Resort Pier	The first vessel to arrive at the specified pier within two hours after receiving TD's notification	Subject to availability of sufficient vessels for such purpose	Subject to availability of vessels at incident time	MBTA
	(Journey time of ordinary and fast ferry is about 35 mins & 25 mins respectively)			
Tsuen Wan – Tung Chung Development Pier	The first vessel to arrive at the specified pier within two hours after receiving TD's notification	Subject to availability of sufficient vessels for such purpose		MBTA
	(Journey time of ordinary and fast ferry is about 60 mins & 50 mins respectively)			
Central – SkyPier	The first vessel to arrive at the specified pier within 3 hours after receiving AAHK and TD's notification subject to availability of spare vessels, berthing facilities in Central Ferry Pier, operation staff, and subject to provision of all required documents to ImmD for processing necessary formalities to facilitate the cross boundary ferry crew's performance of duty in Hong Kong	30-40 mins (Subject to availability of sufficient vessels for such purpose)	Max. no. of vessels available: 6 Capacity: About 260 seats/ vessel (4 vessels from cross-boundary ferry operators and 2 vessels from MBTA)	Cross-boundary Ferry Operators (TurboJET / CKS) under AAHK's mobilization MBTA under the contract of TD
Tuen Mun Ferry Pier – SkyPier	The first vessel to arrive at the specified pier within 3 hours after receiving AAHK's notification subject to availability of spare vessels, and subject to provision of all required documents to ImmD for processing necessary formalities to facilitate the cross boundary ferry crew's performance of duty in Hong Kong	25-40 mins (Subject to availability of sufficient vessels for such purpose)	Max. no. of vessels available:4 Capacity: About 260 seats/ vessel	Cross-boundary Ferry Operators (TurboJET / CKS) under AAHK's mobilization

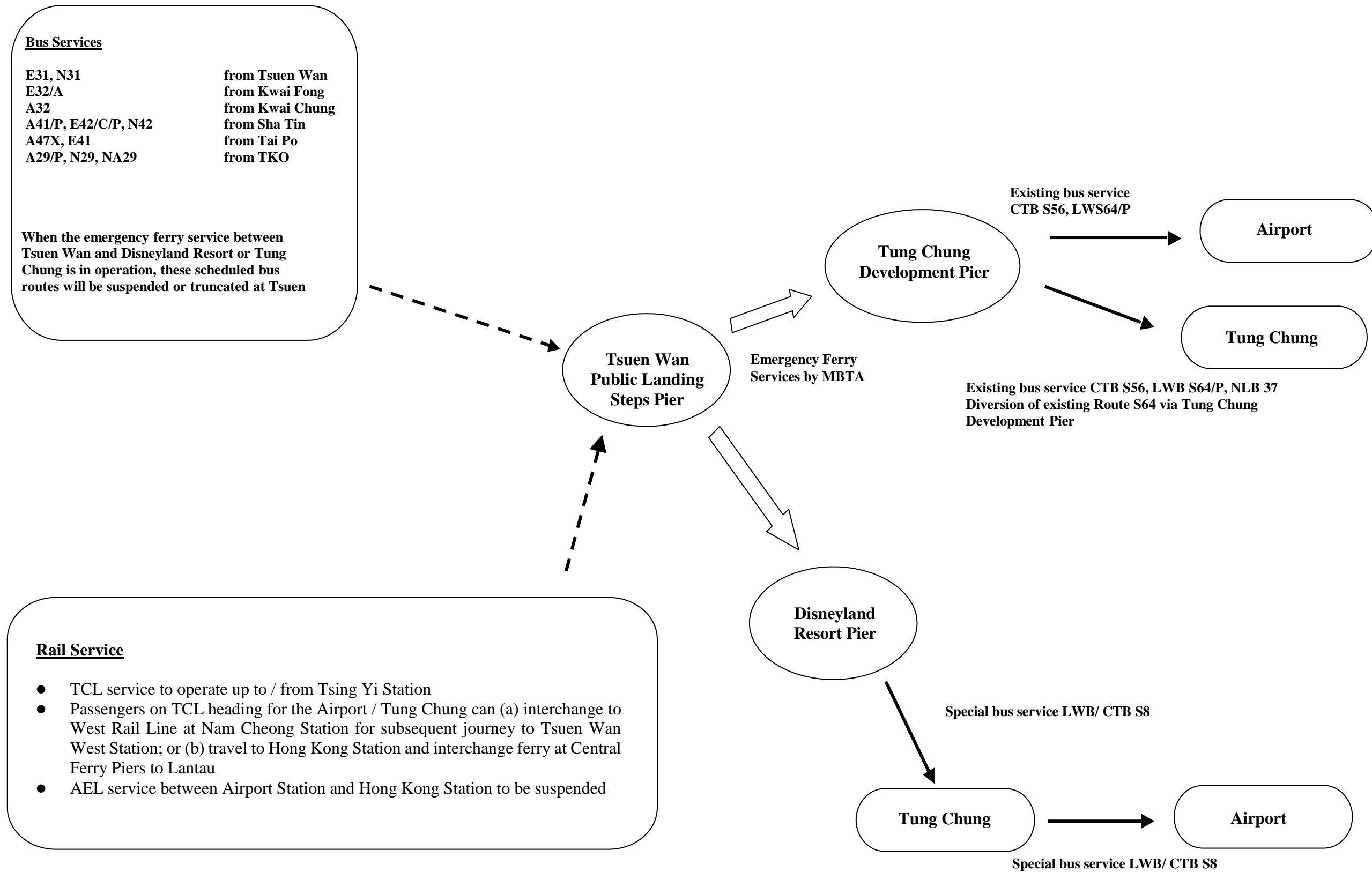
Schematic Diagrams of Emergency Bus and Ferry Services for NLL Situation(I) Passengers from Hong Kong IslandRail service

- AEL service between Hong Kong Station and Airport Station to be suspended. Service between Airport Station and AsiaWorld-Expo Station is still available. The stranded passengers at Hong Kong Station will be guided to Central Ferry Piers.
- TCL service truncated to operate between Hong Kong Station and Tsing Yi Station/ Sunny Bay Station (if situation warrants).

(II) Passengers from Kowloon



(III) Passengers from Tuen Mun / Yuen Long / Fanling

(IV) Passengers from NT East / Kwai Tsing / Tsuen Wan

Public Transport Emergency
Definition of “Amber Alert” and “Red Alert”

Amber Alert

is defined as:

An early warning from public transport operators to relevant parties in respect of an incident which could lead to a serious disruption of service. The recipient of an “Amber Alert” should alert its emergency unit, prepare for possible emergency action at short notice and keep in touch with the operators relating to the incident.

Red Alert

is defined as:

A signal from public transport operators to indicate that a serious disruption of service has continued or is expected to continue for over 20 minutes, and emergency transport support services from other operators are required. Upon being alerted, the recipient should urgently mobilize their resources to provide appropriate supporting services as soonest as possible.

Alerting System for Incidents of Railway Services

8-Minute Notification Mechanism

MTRCL is required to notify the affected passengers (on board the trains and within the stations / stops), and Transport Department Emergency Transport Coordination Centre (“TD ETCC”) within 8 minutes on any service disruption incident that has occurred for 8 minutes or is expected to last for 8 minutes or more, irrespective of its nature whether the disruption incident will lead to a stoppage of service at a railway station or a stop (in respect of Light Rail) or on a section of a railway line or a serious incident that would affect one or more railway lines or an extension of end-to-end journey time on a railway line by 8 minutes or more.

The notification mechanism is not applicable to train service delay or stoppage arising from service adjustments made during a planned public event and a festival (including Lunar New Year fireworks display, Christmas Eve celebration activities, etc).

The triggering of the notification mechanism does not preclude the issue of Amber or Red Alert. MTRCL should update TD ETCC on any situation change when necessary.

The contents of the notification under this mechanism are:

- (a) nature, cause and location of the incident;
- (b) services delayed or suspended;
- (c) services maintained;
- (d) expected duration of the incident;
- (e) if practicable the expected time when train service will resume; and
- (f) media informed or not.

Core Membership and Terms of Reference on the High Level Command Centre (“HLCC”)

Membership

PSTL (Chairman)

Core Members

Commissioner for Transport or his representative

Director of Marine or his representative

Chief Executive Officer/AA or his representative

Chief Executive Officer/MTRCL or his representative

Deputy Secretary for Transport and Logistics 4

Principal Assistant Secretary for Transport and Logistics 8

Principal Assistant Secretary for Transport and Logistics 10

Principal Information Officer (Transport & Logistics)

Terms of Reference

- (a) To supervise and coordinate the transport contingency arrangements for an incident of NLL to the airport;
- (b) To give command as necessary in order to mobilise resources;
- (c) To report progress to Secretary for Transport and Logistics (“STL”) and other senior Government officials as necessary.

**Responsible Parties for Handling NLL to/from Lantau Island and
Chek Lap Kok**

Responsible Party	Actions
TD (TIMS)	<p><u>Publicity</u></p> <ul style="list-style-type: none"> • Issue press release, disseminate information on road closure & PT arrangement via “GovHK Notifications” mobile application, TD’s website and KMB’s LED display panels at major bus termini. • Arrange with PIO to issue media announcements: <ol style="list-style-type: none"> i. the public may take the regular licensed ferry “Tuen Mun - Tung Chung – Sha Lo Wan – Tai O); ii. the public may take the regular licensed ferry plying between Central and Discovery Bay; iii. the public may take the regular licensed ferry plying between Central and Mui Wo; and iv. the public may take the emergency ferry plying between Tsuen Wan and Disneyland Pier or Tung Chung Development Pier (if so arranged). • Update PIO and CCC on the latest public transport arrangements for coordinated dissemination of information to public; and • Inform all taxi associations of the incident. • To regularly update the concerned parties the latest development of the incident. <p><u>Monitoring</u></p> <ul style="list-style-type: none"> • Escalate TD’s ETCC operation to tier 2 or 3 to handle the incident, if necessary; • Arrange site observers from NTRO or ETCC fixed mode duty officers/ MCCTVs to monitor and record the demand for the emergency ferry services, regular ferry services and franchised bus services; and to record the vessels and pier staff deployed by MBTA; • Deploy MCCTVs to monitor traffic situation when necessary; • FPD to follow up the issues related to regular ferry service; • NTRO to follow up the issues related to franchised bus services; and • TIMS to follow up the issues related to MBTA and TMCA operators.

Responsible Party	Actions
TD (TIMS)	<p><u>Transport and Logistics Bureau (“TLB”)</u></p> <ul style="list-style-type: none"> • Alert Transport and Logistics Bureau Duty Officer (non-rail) and Transport and Logistics Bureau Duty Officer (rail) of the incident and update them about the latest situation; and • Update the HLCC on public passenger transport services, emergency ferry services, road traffic and transport situation.
TD (TIMS)	<p><u>Police</u></p> <ul style="list-style-type: none"> • Confirm with Police on the location of the affected section and extend of road closure; • Liaise with Police on traffic situation; and • Request Police’s assistance in crowd control at concerned bus termini, ferry piers and MTR AEL/TCL stations.
TD (TIMS)	<p><u>Geotechnical Engineering Office, Civil Engineering & Development Department (“GEO, CEDD”)</u> (in case the closure is caused by landslide)</p> <ul style="list-style-type: none"> • To request the relevant maintenance department in accordance with DevB TC(W) No. 6/2011 to carry out the urgent repair works on the landslide and clear the landslide debris on the affected road as soon as possible; and • To advise the expected re-opening time of the affected road in consultation with the concerned maintenance department.
TD (TIMS)	<p><u>Highways Department (“HyD”)</u> (in case the closure is caused by bridge structure)</p> <ul style="list-style-type: none"> • Check the expected re-opening time of the affected section; and • To request them to clear the road as soon as possible.

Responsible Party	Actions
TD (TIMS / TTMS)	<p><u>Tsing Ma Control Area (“TMCA”) Operator</u> (in case closure of Lantau Link and roads within TMCA)</p> <ul style="list-style-type: none"> • Confirm with TMCA Operator on the location of the affected section and extend of road closure; • Request TMCA Operator to arrange Variable Message Signs and radio break-in to alert motorists of road closures; • Request TMCA Operator to implement contingency traffic management measures; • Clear the scene and resume normal traffic in TMCA and on NLH if the incident occurs within TMCA; • Request TMCA Operator to update the traffic situation in TMCA; and • Request TMCA Operator to issue alert messages to all parties concerned.
TD (TIMS / TTMS)	<p><u>Tuen Mun – Chek Lap Kok Tunnel (“TM-CLKT”) Operator</u></p> <ul style="list-style-type: none"> • Confirm with TM-CLKT Operator on the location of the affected section and extend of road closure; • Request TM-CLKT Operator to arrange Variable Message Signs and radio break-in to alert motorists of road closures; • Request TM-CLKT Operator to implement contingency traffic management measures; • Clear the scene and resume normal traffic in TM-CLKT if the incident occurs within TM-CLKT; • Request TM-CLKT Operator to update the traffic situation in TM-CLKT; and • Request TM-CLKT Operator to issue alert messages to all parties concerned.
TD (TIMS)	<p><u>MTRCL</u></p> <ul style="list-style-type: none"> • Handle the incident and issue alert message to other parties if the incident occurs at Lantau Airport Railway; • Disseminate information concerning level of services provided by Lantau Airport Railway; • Arrange shuttle bus services between Hong Kong Station and Central Ferry Piers for the stranded AEL passengers in MTR system at the outbreak of the incident; and • Deploy additional staff to affected stations for crowd control.

Responsible Party	Actions
TD (TIMS / TTMS / NTRO)	<p><u>CTB(F2)</u></p> <ul style="list-style-type: none"> • Request CTB to adjust the bus services as follows: <ul style="list-style-type: none"> - Strengthen the service of Rt. S1 and S56; - Divert Rts. S1 and S52/A/P via Tung Chung Development Pier; - Suspend Rts. A10, A11, A12, A17, E11/A/S, E21/A/C/X, E22/A/C/P/S/X, E23/A, NA21 and R8; - operate special Rt. A12S (Siu Sai Wan - Central Ferry Piers); - Truncate Rt. N11 to Central Ferry Piers; - Truncate Rts. A20, A21, A22, A23, A25, A26, A29/P, N21/A, N23, N26, N29, NA20 and NA29 to Tsuen Wan West Station PTI; and - Operate a special route (Rt. S8) between Disneyland Resort PTI and Airport (via Tung Chung) (when emergency ferry service between Tsuen Wan and Disneyland Pier is in operation) • Continual liaison with CTB on the service level and keep it updated of the latest situation.

Responsible Party	Actions
TD (TIMS / TTMS / NTRO)	<p><u>LWB</u></p> <ul style="list-style-type: none"> • Request LWB to adjust the bus services as follows: <ul style="list-style-type: none"> - Strengthen the Rts. S1, S64C, S64P and S65; - Divert Rts. S1, S64 and N64 via Tung Chung Development Pier; - Truncate Rts. A32, A41/P, A47X, E31, E32/A, E41, E42/C/P, N31, N42/A to Tsuen Wan West Station PTI; - Truncate Rts. A33/X, A34, A36, A37, A43/P, E33/P, E36/P/S/A, E37/C, E43 and N30 to Wu Chui Road westbound outside Tuen Mun Pier Head Bus Terminus; - Suspend Rts. A31, A38, NA31, NA32, NA33, NA36, NA37, NA40, NA41, NA43, NA47, R8, R33 and R42; and - Operate a special route (Rt. S8) between Disneyland Resort PTI and Airport (via Tung Chung) (when emergency ferry service between Tsuen Wan and Disneyland Pier is in operation). • Continual liaison with LWB on the service level and keep it updated of the latest situation.
TD (TIMS / TTMS / NTRO)	<p><u>NLB</u></p> <ul style="list-style-type: none"> • Request NLB to adjust the bus services as follows: <ul style="list-style-type: none"> - Strengthen the Rts. A35 and N35 between Mui Wo and Airport; and - Strengthen the Rt. 37 between Tung Chung Development Pier and Tung Chung Station. • Continual liaison with NLB on the service level and keep it updated of the latest situation.
TD (TIMS / TTMS / FPD)	<p><u>Discovery Bay Transportation Services Limited (“DBTPL”)</u></p> <ul style="list-style-type: none"> • Request DBTPL to strengthen existing ferry services between Central and Discovery Bay; • Request DBTPL to deploy additional staff to piers to monitor passenger demand and to regulate passenger queue; and • Request DBTPL to provide assistance to berthing operation and crowd management at Central Pier No. 3 (when the emergency service between SkyPier and Central is operated).

Responsible Party	Actions
TD (TIMS / TTMS / NTRO)	<p><u>Discovery Bay Transit Services Limited (“DBTSL”)</u></p> <ul style="list-style-type: none"> • Request DBTSL to strengthen existing residents’ service route nos. DB01R, DB02R and DB03R; • Disseminate bus service information to passengers at bus termini; and • Deploy additional staff to bus termini to monitor passenger demand and to regulate passenger queue.
TD (TIMS / TTMS / FPD)	<p><u>Fortune Ferry</u></p> <ul style="list-style-type: none"> • Alert Fortune Ferry of the road closure; and • Liaise with Fortune Ferry to strengthen “Tuen Mun – Tung Chung – Sha Lo Wan – Tai O” ferry services. • Request Fortune Ferry to provide assistance to berthing operation and crowd management at TMFP (when the emergency ferry service between SkyPier and Tuen Mun is operated)
TD (TIMS / TTMS / FPD)	<p><u>Sun Ferry Services Company Limited (“Sun Ferry”)</u></p> <ul style="list-style-type: none"> • Request Sun Ferry to strengthen existing ferry services between Central and Mui Wo; • Request Sun Ferry to deploy additional staff to piers to monitor passenger demand and to regulate passenger queue; and • Disseminate ferry service information to passengers at piers. • Request Sun Ferry to operate emergency ferry service between Central and SkyPier subject to availability of suitable vessels when agreed.

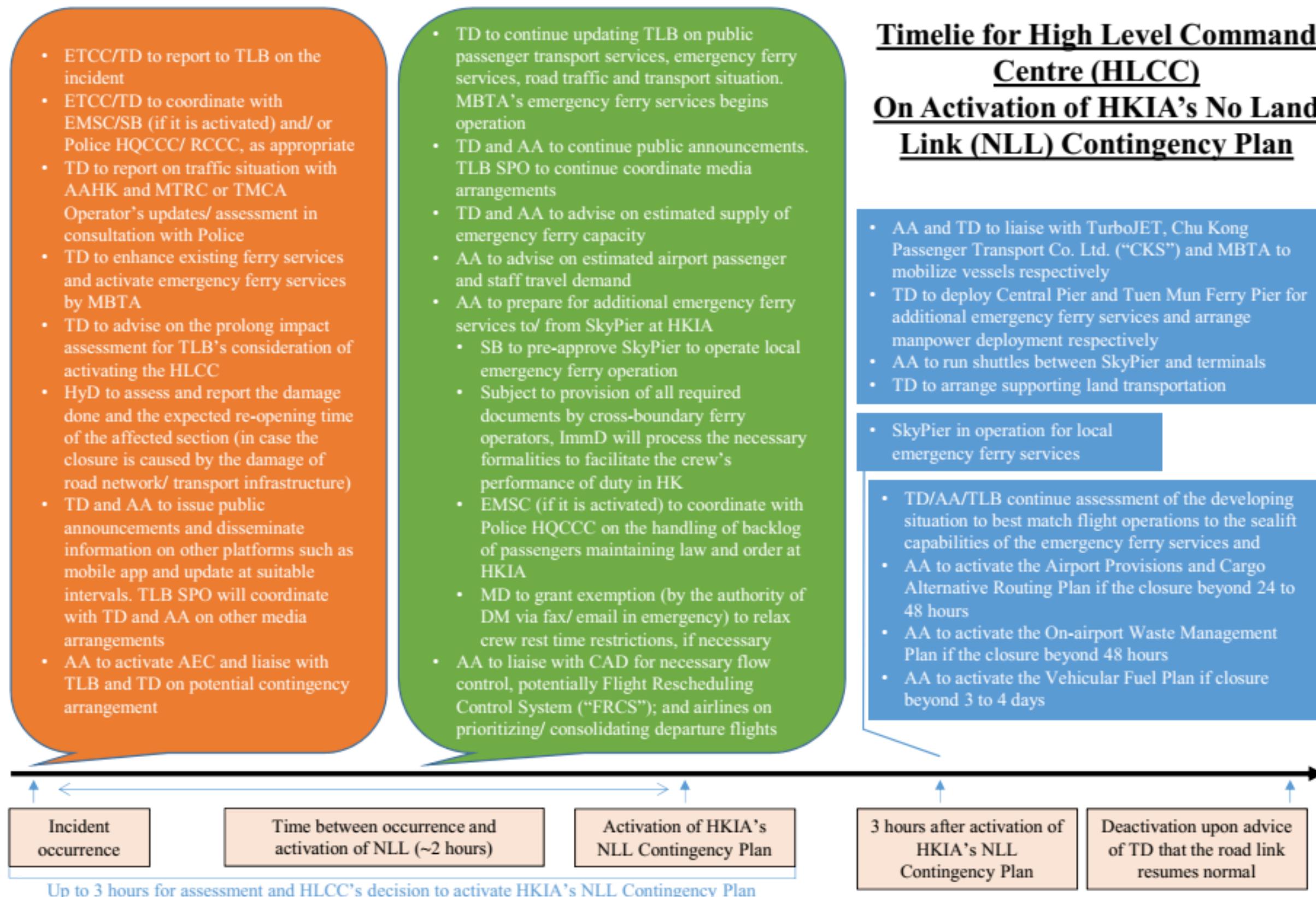
Responsible Party	Actions
TD (TIMS / TTMS / FPD)	<p><u>Park Island Transport Co. Ltd. (“PITCL”)</u></p> <ul style="list-style-type: none"> • Request PITCL to strengthen existing ferry services between Central and Ma Wan, and between Tsuen Wan and Ma Wan; • Request PITCL to deploy additional staff to piers to monitor passenger demand and to regulate passenger queue; • Disseminate ferry service information to passengers at piers; and • Request PITCL to provide assistance to berthing operation and crowd management at Central Pier No. 2 (when the emergency ferry service between SkyPier and Central is operated).
TD (TIMS)	<p><u>MBTA</u></p> <ul style="list-style-type: none"> • Request MBTA to operate the emergency ferry services between Tsuen Wan and Disneyland Resort Pier or Tung Chung Development Pier; • Request MBTA to deploy sufficient staff at piers for crowd management and disseminate emergency ferry service information to passengers at piers; • Request MBTA to set up Control Room to report the details of each sailing and passenger queue; and • Request MBTA on the provision of 2 vessels to operate the emergency ferry service between SkyPier and Central piers.
TD (TIMS)	<p><u>Marine Department (“MD”)</u></p> <ul style="list-style-type: none"> • Request MD to regulate marine traffic if situation requires.

Responsible Party	Actions
TD (TIMS / TTMS / NTRO)	<p><u>Airport Authority Hong Kong (“AAHK”)</u></p> <ul style="list-style-type: none"> • Alert AAHK of the road closure. • Request AAHK to disseminate information to airport community (e.g. airlines, AAHK staff members, passengers etc); • Request AAHK to implement crowd control in PTB, GTC and SkyPier; • Request AAHK to assist in traffic control on Airport Island; and • Request AAHK to operate emergency ferry services between SkyPier and Central and between SkyPier and Tuen Mun.
TD (TIMS)	<p><u>Civil Aid Service (“CAS”)</u></p> <ul style="list-style-type: none"> • Request CAS to deploy staff at the concerned Central Ferry Pier(s) and Tuen Mun Piers for crowd management. (Upon AAHK’s notification of operating emergency ferry service between SkyPier and Central is received by TD)
TD (TIMS / TTMS / FPD)	<p><u>Hong Kong & Kowloon Ferry Limited (“HKKF”)</u></p> <ul style="list-style-type: none"> • Request HKKF to disseminate ferry service information to passengers at piers; • Request HKKF to deploy staff to piers to regulate passenger queue;
TD (TIMS / TTMS / FPD)	<p><u>The ‘Star’ Ferry Company Limited (“SF”)</u></p> <ul style="list-style-type: none"> • Request SF to provide assistance to berthing operation and crowd management at Central Pier No. 7 (when the emergency ferry service between SkyPier and Central is operated).

Responsible Party	Actions
TD (TIMS / TTMS / ROs)	<p><u>NWFB, KMB and Citybus (F1)</u></p> <ul style="list-style-type: none"> • Request the franchised bus operators to adjust (increase or decrease the headway) existing feeder services to the ferry piers concerned; • Request the franchised bus operators to disseminate bus service information to passengers at bus termini and en-route stops; and • Request the franchised bus operators to deploy additional staff to bus termini concerned (including those next to ferry piers concerned), to monitor passenger demand and to regulate passenger queue.
TD (TIMS / TTMS / NTRO)	<p><u>Hong Kong International Theme Park (“HKITP”)</u></p> <ul style="list-style-type: none"> • Request HKITP to disseminate information on emergency traffic and transport arrangements to Disneyland visitors at Theme Park, Inspiration Lake and Recreation Centre, and hotel guests and its staff members; • Request HKITP to consider introducing measures to take pressure off the public transport system, e.g. delaying opening or closing time of the Park; and • Request HKITP to implement crowd and traffic control at the Disneyland PTI and Pier (when the emergency service between Tsuen Wan and Disneyland is operated).
TD (TIMS / TTMS / NTRO)	<p><u>AsiaWorld-Expo Management Limited (“AWEML”)</u></p> <ul style="list-style-type: none"> • Request AWEM to disseminate information on emergency traffic and transport arrangements to AWE visitors and exhibitors; • Request AWEM to consider introducing measures to take pressure off the public transport system, e.g. delaying opening or closing time of the Exhibition/ Convention/ Concert and Entertainment Event; and • Request AWEM to implement crowd and traffic control at the AWE.

Responsible Party	Actions
TD (TIMS / TTMS / NTRO)	<p><u>Ngong Ping 360 Limited (“NP360L”)</u></p> <ul style="list-style-type: none"> • Request NP360L to disseminate information on emergency traffic and transport arrangements to visitors in cable car and Ngong Ping Village; • Request NP360L to consider introducing measures to take pressure off the public transport system, e.g. delaying opening or closing time of the cable car; and • Request NP360L to implement crowd and traffic control at Tung Chung terminal.
TD (TIMS / NTRO)	<p><u>HKP MOM Contractor</u></p> <ul style="list-style-type: none"> • Request MOM Contractor to disseminate information on emergency traffic and transport arrangements to visitors at the PTIs on HKP.
TD (TIMS / NTRO)	<p><u>SHT, TLT, other relevant tunnel and control area operators</u></p> <ul style="list-style-type: none"> • Request operators to arrange radio break-in to alert the motorist of the traffic situation.
TD (TIMS / TTMS / NTRO)	<p><u>District Office/Islands (“DO/Islands”)</u></p> <ul style="list-style-type: none"> • Alert DO/Islands of the road closure; and • Request DO/Islands to inform local personalities in Lantau of the incident and contingency public passenger transport services.
TD (TIMS / TTMS / NTRO)	<p><u>District Office/Tsuen Wan (“DO/TW”)</u></p> <ul style="list-style-type: none"> • Alert DO/TW of the road closure; and • Request DO/TW to inform local personalities in Ma Wan of the incident and contingency public passenger transport services.
TD (TIMS / TTMS / NTRO)	<p><u>District Office/Tuen Mun (“DO/TM”)</u></p> <ul style="list-style-type: none"> • Alert DO/TM of the road closure and contingency public passenger transport services.
TD (TIMS)	<p><u>Customs & Excise Department (“C&E”)</u></p> <ul style="list-style-type: none"> • Alert C&E of the road closure; and • Request C&E to maintain normal Customs clearance service for arrival passengers and their baggage at Customs checkpoints of Hong Kong International Airport.
TD (TIMS)	<p><u>Immigration Department (“ImmD”)</u></p> <ul style="list-style-type: none"> • Alert ImmD of the road closure; and • Request ImmD to maintain normal immigration clearance for arriving and departing passengers at the Hong Kong International Airport.

Responsible Party	Actions
TD (TIMS)	<u>Hong Kong Hotel Association (“HKHA”)</u> <ul style="list-style-type: none"> • Alert HKHA to relay TD’s emergency messages to its members.
TD (TIMS)	<u>Travel Industry Authority (“TIA”) and Travel Industry Council of Hong Kong (“TIC”)</u> <ul style="list-style-type: none"> • Alert TIA and TIC to relay TD’s emergency messages to their licensees and members respectively; and • Send the press releases to TIA and TIC by fax (during office hours) and to the email accounts of Ms Annie Fonda of TIA (anniefonda@tia.org.hk) and Ms Fanny Yeung of TIC (office@tichk.org) respectively after alerting them by phone (outside office hours).



Timeline for High Level Command Centre (“HLCC”) on Activation of Additional Emergency Ferry Services to/from SkyPier-Central / Tuen Mun

Incident (e.g. 0000 hrs)	Activation (e.g. 0300)	SkyPier in operation for local emergency ferry services (e.g. 0600)	
Immediately after occurrence NLL incident (e.g. 0000 - 0100)	Time between incident occurrence and activation of HKIA’s NLL Contingency Plan (e.g. 0100 - 0300)	3 hours after activation of HKIA’s NLL Contingency Plan⁵ (e.g. 0300 - 0600)	
ETCC/TD	<ul style="list-style-type: none"> ETCC/TD to report to TLB Duty Officer on the incident (see Annex 7 for elaboration on the reporting mechanism) ETCC/TD to coordinate with EMSC/SB (if activated) and/or Police HQCCC/RCCC, as appropriate TD to report on traffic situation with MTRC, TMCA or TM-CLKT Operator’s updates/assessment in consultation with Police TD and AAHK to issue public announcements and disseminate information on platforms such as mobile app and update at suitable intervals. Secretariat Press Office of TLB (“TLB SPO”) to coordinate with TD and AAHK on other media arrangements. 	<ul style="list-style-type: none"> TD to enhance existing ferry services and activate emergency ferry services by Hong Kong & Kowloon Motor Boats & Tug Boats Association Ltd. (“MBTA”) TD to advise on estimated supply of emergency ferry capacity (provided by MBTA) TD to continue updating TLB on public passenger transport services, emergency ferry services (provided by MBTA), road traffic and transport situation. MBTA’s emergency ferry services begins operation TD to advise on the prolong traffic & transport impact assessment for TLB’s consideration of activating the HLCC TD and AAHK to continue public announcements. TLB SPO to continue coordinate media arrangements 	<ul style="list-style-type: none"> TD to liaise with MBTA to mobilize two vessels for additional emergency ferry services TD to deploy berthing facilities and operation staff in Central Pier for additional emergency local ferry services TD to arrange supporting land transportation TD to update as appropriate in respect of TMFP. TD to update in respect of provision of two vessels by MBTA.
HyD			
HLCC/TLB	<ul style="list-style-type: none"> TLB Duty Officer (TLBDO) to report to DSes, PSTL and Principle Official’s Office (“POO”) on the incident (see Annex 7 for elaboration on the reporting mechanism) TD and AAHK to issue public announcements and disseminate information on platforms such as mobile app and update at suitable intervals. TLB SPO to coordinate with TD and AAHK on other media arrangements. 	<ul style="list-style-type: none"> HLCC to be set up at the Transport Department High Command Room on 16/F, South Tower, West Kowloon Government Offices, 11 Hoi Ting Road, Yau Ma Tei (i.e. one floor above and with direct access to the ETCC). HLCC to consider activating the NLL Contingency Plan based on TD (in consultation with SB/Police) / HyD / AAHK’s assessment. HLCC to give policy steer as and when required. 	<ul style="list-style-type: none"> HLCC to continue assessment of the developing situation to best match flight operations to the sealift capabilities of the emergency ferry services. HLCC to consider deactivation upon advice of TD (in consultation with EMSC/Police) / HyD that the road link resumes normal.

⁵ If the total closure of land link is beyond 24 to 28 hours, AAHK to activate the Airport Provisions and Cargo Alternative Routing Plan; if beyond 48 hours, AAHK to activate the On-airport Waste Management Plan; and if beyond 3 to 4 days, AAHK to activate the Vehicular Fuel Plan.

AAHK	<ul style="list-style-type: none"> • AAHK to consider activating Airport Emergency Centre (“AEC”) • TD and AAHK to issue public announcements and disseminate information on other platforms such as mobile app and update at suitable intervals. TLB SPO to coordinate with TD and AAHK on other media arrangements. 	<ul style="list-style-type: none"> • AEC (if activated), to liaise with TLB and TD on potential contingency arrangement • AAHK to advise on estimated airport passenger and staff travel demand • AAHK to advise on estimated supply of emergency ferry capacity (by SkyPier) • AAHK to prepare for additional emergency ferry services to/from SkyPier at HKIA <ul style="list-style-type: none"> (a) ImmD to issue no-objection letter for Mainland ferry crew to work locally upon received the documents required include, but not limited to: <ul style="list-style-type: none"> (i) travel document of the crew; (ii) a list specify the particulars and posts of crew; (iii) a company letter from ferry operator that guarantee to ensure the crew on board will leave Hong Kong upon or before the departure of the ferry/ vessel in which they arrived in Hong Kong (b) MD to grant exemption (by the authority of DM via fax/email in emergency) to the crew of High-Speed Craft (HSC) to relax crew rest time restrictions • AAHK to liaise with CAD for necessary flow control, potentially Flight Rescheduling Control System (“FRCS”); and airlines on prioritizing/consolidating departure flights • EMSC (if activated) to coordinate with Police HQCCC on the handling of backlog of passengers maintaining law and order at the HKIA. 	<ul style="list-style-type: none"> • AAHK to liaise with TurboJET and Chu Kong Passenger Transport Co. Ltd. (“CKS”) to mobilize eight vessels • AAHK to deploy berthing facilities and operation staff in SkyPier for additional emergency local ferry services • AAHK to run shuttles between SkyPier and terminals
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Elaboration on the Reporting Mechanism by ETCC/TD to TLB

TD	
<p>1. First Contact Point (“FCP”) to alert -</p> <ul style="list-style-type: none"> - Tunnels & Tsing Ma Section (“TMS”) - Transport Incident Management Section (“TIMS”) - District Officer/Islands (“DO/Is”) - Hong Kong Police Force (“Police”) - Airport Authority Hong Kong (“AAHK”) 	
<p>2. TMS and TIMS to alert -</p> <ul style="list-style-type: none"> - Assistant Commissioner /Management & Paratransit (“AC/MP”) or Deputy Controller A/B (“DepCon A/B”) (i.e. Directorate officer in charge during non-office hours) - Assistant Commissioner/NT (“AC/NT”) - PIO/TD 	AAHK (wrt NLL Plan (Rev 19))
<p>3. AC/MP (for TMCA and TM-CLKL)/AC/NT (for NLH) (during office hours) or DepCon A/B (during non-office hours) shall -</p> <ul style="list-style-type: none"> - Decide whether Emergency Transport Co-ordination Centre (“ETCC”) Tier Three Response (i.e. Joint Steering Mode (JSM) ETCC Operation)⁶ should be activated. 	<p>3. AAHK to -</p> <ul style="list-style-type: none"> - Decide whether Airport Emergency Centre (“AEC”) should be activated.

⁶ Paragraph 3 of TLB Internal Circular sets out that Tier One Response (Normal ETCC Operation) is operated round the clock to handle incidents that are minor, localized or can be resolved within a short period of time (i.e. normally “Amber Alert” incidents). The operation of the ETCC will be escalated to Tier Two Response (Fixed Mode ETCC Operation) in case of small-scale planned events; serious road or tunnel incidents; or major, widespread disruption or breakdown of public transport services (i.e. normally “Red Alert” incidents). It will be escalated to Tier Three Response (Joint Steering Mode (JSM) ETCC Operation) in case of large-scale planned events, major incidents and other situations that warrant high level steer and coordination. Senior officers from TD and the Police will provide joint steer on traffic and transport issues to enhance communication and coordination. Where the circumstances warrant it, a representative from Transport Branch at directorate level will be invited to attend the ETCC to enhance coordination with other bureau and the senior echelon of the Government to expedite remedial/recovery actions for the incident.

<p>4. If ETCC JSM is activated, AC/MP/AC/NT (during office hours) or DepCon A/B (during non-office hours) shall -</p> <ul style="list-style-type: none"> - Notify Deputy Commissioner for Transport (“DC for T”) or Commissioner for Transport (“C for T”). If DC for T and C for T cannot be contacted, AC/MP/AC/NT (during office hours) or DepCon A/B (during non-office hours) will take full charge of the ETCC JSM. - Inform Transport and Logistics Bureau Duty Officer (“TLBDO”) (non-rail) (i.e. PASes on a roster basis)⁷ and TLBDO (rail) (i.e. PAS(TL)4).⁸ - Inform Security Bureau (“SB”) Duty Office - Maintain Coordination with AAHK (or Airport Emergency Centre (“AEC”) if activated) 	<p>4. If AEC is activated, AAHK to -</p> <ul style="list-style-type: none"> - Inform PAS(TL)⁹
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⁷ While this document intends to extract parts relating to NLL scenario where HLCC activation is required (NLL scenario implies that the incident(s) concerned are both rail and non-rail related), as set out in the TLB Internal Circular, TLBDO (non-rail) should be alerted for all “Red Alert” incidents (i.e. Tier Two Response (Fixed Mode ETCC Operation)), incidents that have attracted or may attract high level media attention or “Amber Alert” incidents (i.e. Tier One Response (Normal ETCC Operation)) that the ETCC Controller considers worthy of TLBDO (non-rail)’s attention; and TLBDO(rail) should be alerted for all rail incidents.

⁸ Paragraph 18 of TLB Internal Circular specifies that ETCC should not alert POO direct, but via TLBDO.

⁹ If PAS(TL)8 cannot be contacted in the first instance, DS(TL)4 should be contacted instead.

TLB (wrt TLB Internal Circular)

TLBDO¹⁰ is the first contact officer in TLB on emergency transport incidents (not limited to NLL scenarios).

5. TLBDO (non-rail) <ul style="list-style-type: none"> - To alert DS(TL)1¹¹ - To alert AA/STL, PrS/STL and PIO(TL) 	5. TLBDO (rail) (i.e. PAS(TL)4) <ul style="list-style-type: none"> - To alert DS(TL)2¹² - To alert AA/STL, PrS/STL and PIO(TL) 	5. PAS(TL)8 <ul style="list-style-type: none"> - To alert DS(TL)4 - To seek PSTL steer on HLCC
6. DS(TL)1 <ul style="list-style-type: none"> - To alert PSTL - To alert other DSes where necessary 	6. DS(TL)2 <ul style="list-style-type: none"> - To alert PSTL 	6. AA or PrS /STL <ul style="list-style-type: none"> - To alert STL

¹⁰ PAses who are responsible for the land and waterborne transport portfolio in TLB are designated as TLBDO for handling emergency traffic and transport incidents (not limited to NLL scenarios). Please refer to Annex C of TLB Circular for roster. The key roles of the TLBDO are:

- (i) to alert senior officers of TLB and POO, and PIO(TL) to major incidents, and to keep them informed of the progress as appropriate;
- (ii) to alert subject PAses to the incidents;
- (iii) for serious and prolonged incidents, to keep close contact with the ETCC on the progress of recovery actions, the number of injuries and media enquiries;
- (iv) to give policy steer as and when required;
- (v) to work out with ETCC (and PIO(TL) as necessary) the lines-to-take on sensitive issues for response to media enquiries; and
- (vi) to join ETCC as TLB representative when invited by ETCC.

For unplanned events, controller/ETCC should decide whether to invite TLB representative to join the ETCC. TLBDO (non-rail) and TLBDO (rail) will then consult DS(TL)1 and DS(TL)2 respectively and seek direction. Where an incident may affect a large number of travelers, where widespread road closure and/or public transport service disruption over a considerable period is envisaged, where there is high level of media attention, or where a quick solution may benefit from high level decisions, TLB should send a representative to the ETCC to enhance coordination with other bureaux and the senior echelon of the Government to expedite remedial/recovery actions.

¹¹ If TLBDO (non-rail) cannot contact DS(TL)1 in the first instance, he should alert PSTL direct. If he cannot get immediate hold of PSTL, he should alert DS(TL)2 or DS(TL)3 in this order.

¹² If TLBDO (rail) cannot contact DS(TL)2 in the first instance, he should alert PSTL direct. If he cannot get immediate hold of PSTL, he should alert DS(TL)1 or DS(TL)3 in this order.

Procedures for Notification to Transport and Logistics Bureau and Security Bureau

(1) Notifying Transport and Logistics Bureau (“TLB”)

The Transport and Logistics Bureau Duty Officer (“TLBDO”) is the first contact officer in TLB on emergency transport incidents. As the actions required of rail-related and non-rail related incidents are different, the subject PAS looking after railway operation and services, i.e. PAS(TL)4 is designated as the TLBDO(Rail) whom TD should contact in respect of all rail incidents. Other PAses who are responsible for land and waterborne transport in TLB will take turn to be TLBDO(Non-rail) on a roster basis.

In the event of **no land link to/from Lantau Island and Chek Lap Kok**, both TLBDO(Rail) and TLBDO(Non-rail) should be contacted by ETCC. DS(TL)s, PSTL, POO (either AA to STL or Press Secretary to STL) and PIO(TL) would be notified through TLBDO (Rail) or (Non-rail) according to the mechanism set out in TLB Internal Circular being updated by TLB. AA to STL or Press Secretary to STL would consider the need for alerting STL and USTL.

In case TLBDO (Rail) and/or TLBDO(Non-rail) cannot be reached, DS(TL)s would be contacted as follows:

- (i) In case TLBDO (Rail) cannot be reached, DS(TL)2 should be contacted.
- (ii) In case (TLBDO)(Non-rail) cannot be reached, DS(TL)s would be contacted in the following order:
 - (a) DS(TL)3 or DS(TL)2
 - (b) DS(TL)1

DS(TL)s will then consider the need to notify PSTL and POO. A flow chart showing the notification arrangement is at **Annex B** of Transport Branch Internal Circular being updated by TLB.

Separately, ETCC will contact the Airport Duty Manager of AA (“AA-ADM”) who will decide whether Airport Emergency Centre (“AA-AEC”) should be activated. Should AA-AEC be established, ETCC will maintain with coordination with AA-AEC; in parallel, AA-ADM will alert PAS(TL)8. PAS(TL)8 will then alert DS(TL)4 and seek steer from PSTL as to whether the High Level Command Centre (“HLCC”) for Non Land Link to Airport should be established.

In notifying the above officers, use their office telephone numbers or mobile telephone / pagers during office hours and mobile telephone / pagers or residential telephone numbers outside officer hours.

(2) Notifying Security Bureau (“SB”)

The Security Bureau Duty Officer’s telephone number is 2524 4387.

Legend:

PSTL	– Permanent Secretary for Transport and Logistics
DS(TL)1	– Deputy Secretary for Transport and Logistics 1
DS(TL)2	– Deputy Secretary for Transport and Logistics 2
DS(TL)3	– Deputy Secretary for Transport and Logistics 3
POO	– Principle Official’s Office
Press Secy to STL	– Press Secretary to STL
AA to STL	– Administrative Assistant to STL
PAS(TL)	– Principal Assistant Secretary (Transport and Logistics)

Emergency Contact Telephone / Fax Numbers

Agency	Telephone No.	Fax. No.
Transport and Logistics Bureau (a) TLBDO (Non-rail) (b) TLBDO (Rail) (c) PAS(TL)8	6293 1873 6718 9769 3509 8194 9802 5914	-- --
Security Bureau Security Bureau Duty Officer Gov't Security Officer	2524 4387 2810 2816	-- 2501 4755
Electrical and Mechanical Services Department - Duty Officer of Railways Branch	3968 7650 (office hour) 9192 5250 (non office hour)	3579 2016
Transport Department Emergency Transport Coordination Centre ("ETCC")	2410 0066/ 2410 0193	2428 6502
Fire Services Department Fire Services Communications Centre	2733 7772	2311 0066
Hong Kong Police Force		
Regional Command & Control Centre, NT Region Duty Controller	3661 7200	2667 5513
CIP (Ops)(NTS Regional HQ) Ms. WONG Yuet-chi	3661 1145	2200 4651
Sub-Unit Commander (Lantau, Airport & West Rail Line) (Railway Dist.) Mr. CHEUNG Sui Lun	3661 4697/ 3661 2834	2449 9431

Agency	Telephone No.	Fax. No.
Div. Commander (Lantau N) Mr. LAW Hoi Ming	3661 1921	2988 1822
Div. Commander (Lantau S) Mr. CHONG Kam Yan	3661 2781	2984 1538
Dist. Commander (Airport Dist.) Mr. MAK Man Yu	3661 2001	2769 4808
Dist. Commander (Tsuen Wan) Mr. Kerry Paul Lee CAREW	3661 2361	2416 4171
Dist. Commander (Kwai Tsing) Mr. TSE Chun Chung, John	3661 2806	2485 3592
Asst. Dist. Commander (Tuen Mun) Mr. CHENG Wing Cheong	3661 5709	2465 3662
Dist. Commander (Central) Mr. LAM Hung Chuen	3660 1101	2521 9877
CSP (Traffic) Mr. AU Wing Leung, Damon	2860 6222	2200 4314
Div. Commander (Ops)(Marine W) -	3660 9101	2452 5413
OC Gen Regy (Emergency Unit NT S) Mr. NAM Kai Kong	3661 1404	2200 4664
SSP (Traffic)(NTS Regional HQ) Mr. CHOW Ngai Kong	3661 1106	2200 4658
SSP (Traffic HK Island) Mr. YIP Siu Ming, Michael	3660 6888	2804 6858
Immigration Department		
Dep Sec Commander (Airport) Ops Support, Control Branch, Airport Division	2182 1443	2754 7876
Dep Sec Commander (Airport) Field Operation Control Branch, Airport Division	2183 1327	2261 2044
Customs and Excise Department		
Divisional Commander (Airport Apron), Boundary and Ports Branch (BP Branch), Airport Command, Air Passenger & Apron Group, Airport Apron Division Ms. WONG Sze Wan	2182 1023	2261 2900

Agency	Telephone No.	Fax. No.
Marine Department		
Maritime Rescue Co-ordination Centre	2233 7999	2541 7714
Civil Aid Service		
1 st Contact Point: CAS Duty Officer (24 hours)	9489 4836	--
2 nd Contact Point: Principal Operations and Training Officer (2)	9383 6194	2576 3021
Only when CAS Central Command Centre is activated: CAS Operations Commander	2711 9171-74	2624 6405
Tourism Commission		
(Senior AO (Tourism)1)	2810 3728	2801 4458
District Office/Islands		
District Officer (Islands)	2852 4301/ 2544 5661/ 5635 9778	2541 4606 (Confidential)
Assistant District Officer (Islands)1	2852 4203/ 9412 1308	2815 2291 (Normal fax)
Emergency Team/Islands	2852 4585/ 2852 4324/ 5605 7496 6856 4166	
District Office/Tsuen Wan		
(DO/TW)	3515 5600/	2412 0244
(ADO/TW)	9020 9333 3515 5602/ 9193 4502	2412 0341

Agency	Telephone No.	Fax. No.
Airport Authority Hong Kong		
Airport Duty Manager	2183 2939/ 9032 2939	2182 2939
Airport Emergency Centre (“AEC”)	2182 0088	2182 9088
Integrated Airport Centre (“IAC”) – Landside Department (“LD”)	2181 8118	2183 2277
MTR Corporation Ltd.		
Control Room, Airport Station	2261 1322	2261 0521
Control Room, Tsuen Wan West Station	2252 2801	2412 2111
– Communication Co-ordination Centre (“CCC”) Manager-Operations Communication	2212 2600	2435 8673
– Communication Co-ordination Centre (“CCC”) Communication Controller	2212 2115	
KMB		
Control Room	Direct line or 2741 5672 3473 1929	2785 9207
Mr. Leung Wang Cheong (Manager, Operations-Zone 2)	3473 1929	2745 0300
Ms. Cathy Cheng (Assistant Manager, Operations-Zone 2)	3473 1928	
Mr. Stephen Wan (Manager, Operations-Zone 5) Mr. Tim Wong (Assistant Manager, Operations-Zone 5)	3406 7701 3406 7709	2454 1937
Citybus Ltd.		
Control Room	2136 2432 or 2553 6982	2136 2420
Mr. Louis KUNG (Operations Manager (F2))	2136 2030 / 9151 8026	2605 5811
Mr. Brian LAM (Assistant Operations Manager (F2))	2136 2019 / 6823 7882	2553 7472

Agency	Telephone No.	Fax. No.
Long Win Bus Co. Ltd. Mr. Stephen Wan (Manager, Operations)	3406 7701	2745 6779
New Lantao Bus (1973) Co. Ltd. Mr. Peter CHU (Deputy Administrative Manager)	2856 8218 6123 8090	2984 8812
New World First Bus Service Ltd. Mr. Roger MA (Operations Manager)	2136 2016/ 9077 9870	2136 2296
Discovery Bay Transit Services Ltd. (Bus) Mr. Peter TSANG (Senior Manager)	2987 3930 / 9689 0016	2987 5246
Discovery Bay Transportation Services Ltd. (Ferry) Mr. Peter TSANG (Senior Manager)	2987 3930/ 9689 0016	2987 5246
Sun Ferry Services Company Ltd. Mr. Johnny WONG (Operations Manager)	2136 2160/ 6651 7594	2131 8025
Duty Controller (Control Room)	2131 8093/ 2131 8097	
Hong Kong & Kowloon Motor Boats & Tug Boats Association Ltd. Contact Centre	2384 1435/ 2782 4808	2780 8156
Mr. WEN Tszi Kit (Chairman) Mr. PUI Chi Keung (Secretary)	9883 8898 9230 0349	
Hong Kong & Kowloon Ferry Ltd.	2533 5338/ 9770 7812	
Ms. April LAM (Deputy General Manager)	6778 3583	2815 6263
Ms. Alison CHEONG (Operation Executive)	6602 2340	
Mr. Ken WONG (Safety & Services Quality Executive)		
The ‘Star’ Ferry Company Limited Control Room (6.30 am to 11.30 pm) Mr. Kevin Lam (Operations Manager)	9869 5828 2118 6223 /	2311 5086 2118 6028 2118 6028

Agency	Telephone No.	Fax. No.
Mr. David CHOW (General Manager)	9181 6487 2118 6236 / 9151 6719	
Park Island Transport Co. Ltd. Control Room	2525 5775	2986 3380
Mr. Jacky Cheung (General Manager)	2946 8800/ 9172 1692	2525 5556
Mr. Donald Cheung (Ferry Operations Manager)	2946 8883/ 9492 4747	
Mr. Henry Yeung (Assistant Bus Operations Manager)	2946 8878/ 9316 3178	
Fortune Ferry Co. Ltd. Mr. Dong Fei (Deputy General Manager)	2116 1782/ 9198 9603	2565 8683
Mr. Zeng G.T. (Integrated Department Manager)	2994 8155/ 9032 6892	
Tsing Ma Control Area Operator (TMCA Operator)	2436 5461	2434 5005
Tsing Sha Control Area Operator (TSCA Operator)	3650 1218	3650 1237
Tuen Mun – Chek Lap Kok Tunnel Operator (TM-CLKT Operator) Mr. KAU Shing (Tunnel Manager)	31923479/ 5918 5077	3192 3478
Control Centre Duty Controller	3192 3401/ 3192 3402	3192 3307 2779 1011 (back-up)
Hong Kong Hotels Association Mr. Patrick Kwok (Executive Director)	2375 3838 9499 5409	2375 7676
Travel Industry Council of Hong Kong Ms Fanny YEUNG	Office hour: 2969 8116 2807 1199	2510 9907 office@tichk.org

Agency	Telephone No.	Fax. No.
Travel Industry Authority Ms Annie FONDA	Non-office hour: 9458 2732 Office hour: 3698 6002 Non-office hour: 9801 0726	3905 6020 anniefonda@tia.or g.hk
Hong Kong International Theme Parks Limited - Security Control	3550 3333	3550 3110
AsiaWorld-Expo Management Limited - Security Control Room	3606 1200	2215 3969
Ngong Ping 360 Limited - Control Room - Duty Manager	3666 0560 3666 0556/ 9220 0871	2109 9179
Shell Hong Kong Limited Airport Passenger Terminal Ms. Brenda CHU (Retail Territory Manager)	2949 0328 2506 7317 / 9217 7046	2949 0920
Hong Kong-Zhuhai-Macao Bridge Hong Kong Port MOM Contractor - Control Room	3195 2389/ 3195 2391/ 2702 5572/ 2702 5238	3195 2440
Hong Kong-Zhuhai-Macao Bridge Hong Kong Port Domestic Car Park Operator - Wilson Parking (Holdings) Limited	6466 2869	2499 6132
Scenic Hill Tunnel Operator - Control Room	6735 1131/ 3583 4675	3756 7158

No Objection Letter for Ferry Crews

Senior Immigration Officer (Airport),
Field Operation,
Immigration Department,

Dear Sir,

Re: No Objection Letter for Ferry Crews

With the activation of the “No Land Link” by the High Level Command Centre, please find the attached list of ferry crews who will be required to operate local ferry sectors from SkyPier to a terminal declared under the Shipping and Port Control (Ferry Terminals) Regulations vv for emergency ferry services to convey passengers from these terminals to the Airport.

These ferry crews will cease operating the local ferry sectors upon the suspension of the “No Land Link” and the ferry operator will ensure the ferry crews will return to the port of origin together with the vessels.

Please do not hesitate to contact the undersigned if further information is required.

(Name of Staff)
(Title)
(Name of Company)

**Vessel list for operating emergency ferry services between SkyPier and Central / Tuen Mun Ferry Pier
(as at December 2022)**

	Vessel Name	Owner/Agent	Type of Vessel	Vessel Model (if known)	Max. Service Speed	Carrying Capacity (Passenger)	Length Overall or Length (m)	Breadth (m)	Max. Loaded Average Draft (m)	Route Assessment	Berthing Trial (required or not)				
											SkyPier on CLK	Tuen Mun Ferry Pier	Central Ferry Pier No 2	Central Ferry Pier No 3	Central Ferry Pier No 7
1	Universal MK 2011*	Shun Tak-China Travel Ship Management Limited-(ST-CTS)	Austal Cat	Austal Cat	43.0	410	47.50	11.80	1.61	completed and approved	Not required	Not required	Required	Required	Required
2	Universal MK 2012		Austal Cat	Austal Cat	43.0	410	47.50	11.80	1.61	completed and approved	Not required	Not required	Required	Required	Required
3	Universal MK 2013*		Austal Cat	Austal Cat	42.0	406	47.50	11.80	1.60	completed and approved	Not required	Not required	Required	Required	Required
4	Universal MK 2015*		Austal Cat	Austal Cat	42.0	423	47.50	11.80	1.60	completed and approved	Not required	Not required	Required	Required	Required
5	Universal MK 2016*		Austal Cat	Austal Cat	44.0	427	47.50	11.80	1.60	completed and approved	Not required	Not required	Required	Required	Required
6	Universal MK 2017*		Austal Cat	Austal Cat	44.0	410	47.50	11.80	1.60	completed and approved	Not required	Not required	Required	Required	Required
7	Universal MK 2001*		Tricat	Tricat	42.9	333	45.00	11.80	1.62	completed and approved	Not required	Not required	Not required	Not required	Not required
8	Universal MK 2002		Tricat	Tricat	42.9	333	45.00	11.80	1.62	completed and approved	Not required	Not required	Not required	Not required	Not required
9	Universal MK 2003*		Tricat	Tricat	42.9	333	45.00	11.80	1.60	completed and approved	Not required	Not required	Not required	Not required	Not required
10	Universal MK 2004		Tricat	Tricat	42.9	331	45.00	11.80	1.62	completed and approved	Not required	Not required	Not required	Not required	Not required
11	Universal MK 2005*		Tricat	Tricat	42.9	333	45.00	11.80	1.62	completed and approved	Not required	Not required	Not required	Not required	Not required
12	Universal MK 2006*		Tricat	Tricat	42.9	331	45.00	11.80	1.62	completed and approved	Not required	Not required	Not required	Not required	Not required
13	Universal MK 2007*		Tricat	Tricat	42.9	333	45.00	11.80	1.62	completed and approved	Not required	Not required	Not required	Not required	Not required
14	Universal MK 2008*		Tricat	Tricat	42.9	331	45.00	11.80	1.60	completed and approved	Not required	Not required	Not required	Not required	Not required
15	Universal MK 2009*		Tricat	Tricat	42.9	328	45.00	11.70	1.69	completed and approved	Not required	Not required	Not required	Not required	Not required
16	Universal MK 2014*		Austal Cat	Austal Cat	42.9	406	47.50	11.80	1.60	completed and approved	Not required	Not required	Required	Required	Required
17	Universal MK I*		Flying Cat	Flying Cat	34.0	303	37.29	10.10	1.70	completed and approved	Not required	Not required	Not required	Not required	Not required

	Vessel Name		Owner/Agent	Type of Vessel	Vessel Model (if known)	Max. Service Speed	Carrying Capacity (Passenger)	Length Overall or Length (m)	Breadth (m)	Max. Loaded Average Draft (m)	Route Assessment	Berthing Trial (required or not)				
												SkyPier on CLK	Tuen Mun Ferry Pier	Central Ferry Pier No 2	Central Ferry Pier No 3	Central Ferry Pier No 7
18	Universal MK III*	宇航 3*	Chu Kong High-Speed Ferry Company Limited- CKHSF	Flying Cat	Flying Cat	34.0	303	37.29	10.10	1.70	completed and approved	Not required	Not required	Not required	Not required	Not required
19	Universal MK V*	宇航 5*		Flying Cat	Flying Cat	32.5	368	36.00	10.10	1.70	completed and approved	Not required	Not required	Not required	Not required	Not required
20	The Grand Canal Shoppes*	大運河購物*		Austal Cat	Austal Cat	42.0	413	47.50	11.80	1.61	completed and approved	Not required	Required	Not required	Not required	Not required
21	The Venetian*	威尼斯人*		Austal Cat	Austal Cat	42.0	413	47.50	11.80	1.61	completed and approved	Not required	Required	Not required	Not required	Not required
22	The Cotai Strip Expo*	金光會展*		Austal Cat	Austal Cat	42.0	413	47.50	11.80	1.61	completed and approved	Not required	Required	Not required	Not required	Not required
23	Shoppes Cotai Central*	金沙廣場*		Austal Cat	Austal Cat	42.0	413	47.50	11.80	1.61	completed and approved	Not required	Required	Not required	Not required	Not required
24	Cotai Central*	金光中心*		Austal Cat	Austal Cat	42.0	413	47.50	11.80	1.61	completed and approved	Not required	Required	Not required	Not required	Not required
25	Shoppes Four Seasons*	四季名店*		Austal Cat	Austal Cat	42.0	413	47.50	11.80	1.61	completed and approved	Not required	Required	Not required	Not required	Not required
26	The Plaza*	百利沙*		Austal Cat	Austal Cat	42.0	413	47.50	11.80	1.61	completed and approved	Not required	Required	Not required	Not required	Not required
27	Gourmet Dining	美食家		Austal Cat	Austal Cat	42.0	413	47.50	11.80	1.61	completed and approved	Not required	Required	Not required	Not required	Not required
28	Marco Polo*	馬可孛羅*	Chu Kong Passenger Transport Co. Ltd.- CKPT	Austal Cat	Austal Cat	42.0	413	47.50	11.80	1.61	completed and approved	Not required	Required	Not required	Not required	Not required
29	St. Mark*	聖馬可*		Austal Cat	Austal Cat	42.0	413	47.50	11.80	1.61	completed and approved	Not required	Required	Not required	Not required	Not required
30	Jin Zhu Hu	金珠湖		Catamaran	Catamaran	34.0	270	40.80	10.80	1.23	completed and approved	Not required	Not required	Not required	Not required	Not required
31	Shi Zi Yang 7	獅子洋 7		Catamaran	Catamaran	30.5	199	41.90	9.50	1.20	completed and approved	Not required	Not required	Not required	Not required	Not required
32	Mei Zhu Hu	鎂珠湖		Catamaran	Catamaran	34.0	270	40.80	10.80	1.20	completed and approved	Not required	Not required	Not required	Not required	Not required
33	Rui Xing	瑞星		Catamaran	Catamaran	26.0	199	27.68	8.50	1.45	completed and approved	Not required	Not required	Not required	Not required	Not required
34	Heng Xing	恒星		Catamaran	Catamaran	26.0	196	27.60	8.50	1.44	completed and approved	Not required	Not required	Not required	Not required	Not required
35	Pang Xing 11	鵬星 11		Catamaran	Catamaran	26.0	199	33.00	8.81	1.05	completed and approved	Not required	Not required	Not required	Not required	Not required

	Vessel Name		Owner/Agent	Type of Vessel	Vessel Model (if known)	Max. Service Speed	Carrying Capacity (Passenger)	Length Overall or Length (m)	Breadth (m)	Max. Loaded Average Draft (m)	Route Assessment	Berthing Trial (required or not)				
												SkyPier on CLK	Tuen Mun Ferry Pier	Central Ferry Pier No 2	Central Ferry Pier No 3	Central Ferry Pier No 7
36	Pang Xing 12	鵬星 12		Catamaran	Catamaran	26.0	199	33.00	8.81	1.05	completed and approved	Not required	Not required	Not required	Not required	Not required
37	Pang Xing 15	鵬星 15		Catamaran	Catamaran	32.8	199	40.00	9.00	1.25	completed and approved	Not required	Not required	Not required	Not required	Not required
38	Pang Xing 16	鵬星 16		Catamaran	Catamaran	31.8	199	40.00	9.00	1.25	completed and approved	Not required	Not required	Not required	Not required	Not required
39	Pang Xing 18	鵬星 18		Catamaran	Catamaran	31.5	199	40.00	9.00	1.25	completed and approved	Not required	Not required	Not required	Not required	Not required
40	Pang Xing 19	鵬星 19		Catamaran	Catamaran	31.8	199	40.00	9.00	1.25	completed and approved	Not required	Not required	Not required	Not required	Not required
41	Pang Xing 20	鵬星 20		Catamaran	Catamaran	32.2	199	40.00	9.00	1.25	completed and approved	Not required	Not required	Not required	Not required	Not required
42	Pang Xing 21	鵬星 21		Catamaran	Catamaran	31.8	199	40.00	9.00	1.25	completed and approved	Not required	Not required	Not required	Not required	Not required
43	Pang Xing 1	鵬星 1		Catamaran	Catamaran	32.7	300	42.00	10.00	1.30	completed and approved	Not required	Not required	Not required	Not required	Not required
44	Pang Xing 22	鵬星 22		Catamaran	Catamaran	30.0	199	40.00	9.30	1.24	completed and approved	to be advised	to be advised	to be advised	to be advised	to be advised
45	Pang Xing 23	鵬星 23		Catamaran	Catamaran	30.0	199	39.20	9.30	1.29	completed and approved	to be advised	to be advised	to be advised	to be advised	to be advised
46	Pang Xing 2	鵬星 2		Catamaran	Catamaran	32.0	300	42.30	10.00	1.36	completed and approved	to be advised	to be advised	to be advised	to be advised	to be advised
47	Pang Xing 30	鵬星 30		Catamaran	Catamaran	30.0	99	35.60	8.20	1.32	completed and approved	to be advised	to be advised	to be advised	to be advised	to be advised
48	Zhong Shan 26	中山 26		Catamaran	Catamaran	37.0	230	42.80	10.80	1.26	completed and approved	to be advised	to be advised	to be advised	to be advised	to be advised
49	Xin Shun Shui	新順水		Catamaran	Catamaran	36.0	263	42.80	10.80	1.11	completed and approved	to be advised	to be advised	to be advised	to be advised	to be advised
50	Hai Chi	海弛		Catamaran	Catamaran	35.0	332	40.10	11.50	1.20	completed and approved	Not required	Not required	Not required	Not required	Not required
51	Hai Qin	海琴		Catamaran	Catamaran	34.0	283	41.50	10.00	1.30	completed and approved	Not required	Not required	Not required	Not required	Not required
52	Hai Jing	海璟		Catamaran	Catamaran	34.0	288	41.50	10.00	1.30	completed and approved	Not required	Not required	Not required	Not required	Not required
53	Xin Hai Shan	新海山		Catamaran	Catamaran	36.5	288	41.50	10.00	1.30	completed and approved	Not required	Not required	Not required	Not required	Not required

	Vessel Name		Owner/Agent	Type of Vessel	Vessel Model (if known)	Max. Service Speed	Carrying Capacity (Passenger)	Length Overall or Length (m)	Breadth (m)	Max. Loaded Average Draft (m)	Route Assessment	Berthing Trial (required or not)				
												SkyPier on CLK	Tuen Mun Ferry Pier	Central Ferry Pier No 2	Central Ferry Pier No 3	Central Ferry Pier No 7
54	Xin Hai We	新海威	Shenzhen Xunlong Shipping Co., Ltd. -SZXL	Catamaran	Catamaran	36.9	288	42.10	10.90	1.30	completed and approved	Not required	Not required	Not required	Not required	Not required
55	Hai Jun	海鈞		Catamaran	Catamaran	28.0	232	33.00	8.81	1.30	completed and approved	Not required	Not required	Not required	Not required	Not required
56	Hai Yu	海鈺		Catamaran	Catamaran	27.4	232	33.00	8.81	1.30	completed and approved	Not required	Not required	Not required	Not required	Not required
57	Hai Qiao	海喬		Catamaran	Catamaran	26.0	186	26.00	8.50	1.45	completed and approved	Not required	Not required	Not required	Not required	Not required
58	Zhong Shan 6	中山 6		Catamaran	Catamaran	40.0	300	40.90	10.80	1.34	completed and approved	to be advised	Not required	to be advised	to be advised	to be advised
59	Zhong Shan 20	中山 20		Catamaran	Catamaran	36.0	300	40.90	10.80	1.34	completed and approved	to be advised	Not required	to be advised	to be advised	to be advised
60	Yu Zhu Hu	鈺珠湖		Catamaran	Catamaran	34.0	270	40.50	10.80	1.21	completed and approved	to be advised	Not required	to be advised	to be advised	to be advised
61	Jiang Men	江門		Catamaran	Catamaran	30.5	199	40.00	9.50	1.19	completed and approved	to be advised	Not required	to be advised	to be advised	to be advised
62	Shi Zi Yang 8	獅子洋 8		Catamaran	Catamaran	30.5	200	40.00	9.50	1.18	completed and approved	to be advised	Not required	to be advised	to be advised	to be advised
63	Yin Zhu Hu	銀珠湖		Catamaran	Catamaran	34.0	270	40.50	10.80	1.21	completed and approved	to be advised	Not required	to be advised	to be advised	to be advised
64	JI CHANG 19	機場 19		Catamaran	Catamaran	31.5	280	42.39	10.8	1.41	completed and approved	to be advised	to be advised	to be advised	to be advised	to be advised
65	MING ZHU HU	銘珠湖		Catamaran	Catamaran	40.0	300	42.80	10.80	1.30	completed and approved	to be advised	to be advised	to be advised	to be advised	to be advised
66	Xun Long 2	迅隆貳號	Shenzhen Xunlong Shipping Co., Ltd. -SZXL	Catamaran	Catamaran	31.0	350	38.00	11.20	2.10	completed and approved	Not required	Not required	Not required	Not required	Not required
67	Xun Long 3	迅隆 3		Catamaran	Catamaran	28.0	224	34.40	8.81	1.10	completed and approved	Not required	Not required	Not required	Not required	Not required
68	Xun Long 4	迅隆 4		Catamaran	Catamaran	28.0	224	34.40	8.81	1.10	completed and approved	Not required	Not required	Not required	Not required	Not required
69	Xun Long 5	迅隆 5		Catamaran	Catamaran	28.0	188	35.60	8.50	1.40	completed and approved	Not required	Not required	Not required	Not required	Not required
70	Xun Long 6	迅隆 6		Catamaran	Catamaran	25.0	188	35.60	8.50	1.40	completed and approved	Not required	Not required	Not required	Not required	Not required
71	Xun Long 7	迅隆 7		Catamaran	Catamaran	29.4	296	42.30	10.00	1.30	completed and approved	Not required	Not required	Not required	Not required	Not required

	Vessel Name		Owner/Agent	Type of Vessel	Vessel Model (if known)	Max. Service Speed	Carrying Capacity (Passenger)	Length Overall or Length (m)	Breadth (m)	Max. Loaded Average Draft (m)	Route Assessment	Berthing Trial (required or not)				
												SkyPier on CLK	Tuen Mun Ferry Pier	Central Ferry Pier No 2	Central Ferry Pier No 3	Central Ferry Pier No 7
72	Xun Long 8	迅隆 8		Catamaran	Catamaran	29.4	296	42.30	10.00	1.30	completed and approved	Not required	Not required	Not required	Not required	Not required
73	Xun Long 9	迅隆 9		Catamaran	Catamaran	29.4	290	42.48	10.00	1.33	completed and approved	to be advised	to be advised	to be advised	to be advised	to be advised

* Vessels ineligible to provide eFerry services due to not having valid HSC (high speed craft) Safety Certificate, i.e. pending for renewal.

**Existing Bus Routes Terminating at Ferry Piers and Connecting HKI / KLN / NT with Lantau Island or Chek Lap Kok
(excluding “A” and “E” Routes)**

(a) To / from Central Ferry Pier

Route	Operating hours	Frequency		Capacity	Operator
3A (Felix Villas – Central Ferry Piers (Pier 7))	<u>Mon – Fri</u> 3.15 p.m. – 4.15 p.m. (from Felix Villas) 7.15 a.m. (from Central) <u>School Days only</u> 7.10 a.m. (from Central) (No service on Sat, Sun & PHs)	From Felix Villas 3.15 p.m., 3.50 p.m., 4.15 p.m.	From Central 7.10 a.m. 7.15 a.m. (School Day only)	1 DD bus of capacity not exceeding 89 Subject to demand, air-conditioned single decker of capacity not exceeding 71 may be deployed for substitution. Subject to demand, air-conditioned double deck vehicles of capacity not exceeding 139 may be deployed for substitution.	NWFB

Route	Operating hours	Frequency	Capacity	Operator
7 (Shek Pai Wan Estate PTI – Central (Central Ferry Piers))	<p><u>Mon – Sat</u></p> <p>5.15 am – 5.45 am (from Shek Pai Wan, one way service)</p> <p>6.00 a.m. – 10.50 p.m. (from Shek Pai Wan)</p> <p>11.15 pm – 12.30 am (from Shek Pai Wan, Special departure via Chi Fu)</p> <p>5:45 a.m. – 10.55 p.m. (from Central)</p> <p>11.20 pm – 1.00 am (from Central, Special departure via Chi Fu)</p> <p><u>Sun & PHs</u></p> <p>5.15 am – 5.51 am (from Shek Pai Wan, one way service)</p> <p>6.11 a.m. – 10.50 p.m. (from Shek Pai Wan)</p> <p>11.15 pm – 12.30 am (from Shek Pai Wan, Special departure via Chi Fu)</p> <p>5:45 a.m. – 10.55 p.m. (from Central)</p> <p>11.20 pm – 1.00 am (from Central, Special departure via Chi Fu)</p>	15 – 25 mins	6 DD buses of capacity not exceeding 124	CTB
71P (Sham Wan Road PTT to Central (Central Ferry Piers))	<p><u>Mon – Sat</u></p> <p>7.55 a.m.</p> <p>(No service on PHs)</p>	N.A.	1 DD buses of capacity not exceeding 126	CTB
629 (Central Ferry Piers (Pier 6) – Ocean Park (Water World)) (One Way Service)	9.30 a.m. – 11.30 a.m. (from Central)	30 mins	2 DD buses of capacity not exceeding 137	CTB
11 (Central (Central Ferry Piers) – Jardine's Lookout) (Circular)	6.30 a.m. – 11:50 p.m	8 – 20 mins	5 SD buses of capacity not exceeding 71 (a.m.) 8 SD buses of capacity not exceeding 71 (p.m.)	CTB

Route	Operating hours	Frequency	Capacity	Operator
12 (Central (Central Ferry Piers) – Park Road) (Circular)	Mon – Sat 6.45 a.m. – 11:36 p.m. Sun & PHs 6.45 a.m. – 11.30 p.m.	13 – 25 mins	3 DD buses of capacity not exceeding 126 (a.m.) 4 DD buses of capacity not exceeding 126 (p.m.)	CTB
15 (Central (Central Ferry Piers) – The Peak)* *Operated from and terminated at Central (Exchange Square) before 10.00 a.m.	6.30 a.m. – 1.00 am. (from The Peak) 6.15 a.m. – 12.15 a.m. (from Central)	6 – 30 mins	7 DD buses of capacity not exceeding 105	NWFB
15C (Central Ferry Piers (Pier 8) – Garden Road (Lower Peak Tram Station))	10.00 a.m. – 10.00 p.m. (from Central) 10.10 a.m. – 10.10 p.m. (from Garden Road)	30 mins	1 SD bus of capacity not exceeding 71	NWFB
X15 (Central (Central Ferry Pier No.6) – The Peak)	Sat, Sun & PHs 10.00 am (from Central) 6:00 pm (from The Peak)	From Central 10.00 am From The Peak 6.00 pm	1 DD bus of capacity not exceeding 89	NWFB
25 (Central (Central Ferry Piers) – Braemar Hill) (Circular)	6.30 a.m. – 11.30 p.m	10 – 20 mins	6 DD buses of capacity not exceeding 126	NWFB
511 (Tai Hang Drive – Central (Central Ferry Piers))	Mon – Fri 7.50 a.m – 8.40 a.m. (No service on Sat, Sun & PHs)	7.50 a.m., 8.10 a.m., 8.25 a.m., 8.40 a.m.	2 SD buses of capacity not exceeding 71	CTB
722 (Yiu Tung Estate – Central (Central Ferry Piers)) (Circular)	6.00 a.m. – 11.33 p.m.	8 – 26 mins	8 DD buses of capacity not exceeding 137	NWFB
780 (Chai Wan (East) – Central (Central Ferry Piers))	5.35 a.m. – 11.20 p.m. (from Chai Wan (East)) 6.15 a.m. – 12:30 a.m. (from Central)	8 – 20 mins	7 DD buses of capacity not exceeding 137 (a.m.) 10 DD buses of capacity not exceeding 137 (p.m.)	CTB
780P Chai Wan (Hing Wah Estate to Central Ferry Piers)	7.15 a.m. – 8.35 a.m.	20 mins	4 DD buses of capacity not exceeding 137	CTB

Route	Operating hours	Frequency	Capacity	Operator
91 (Ap Lei Chau Estate – Central (Central Ferry Piers))	Mon – Sat 5.45 a.m. – 11.45 p.m. (from Ap Lei Chau) 6.25 a.m. – 12:40 p.m. (from Central) Sun & PH 6.00 a.m. – 11.45 a.m. (from Ap Lei Chau) 6.45 a.m. – 12:40 p.m. (from Central)	12 – 30 mins	7 DD buses of capacity not exceeding 139	NWFB
307 (Tai Po Central – Central (Central Ferry Piers))* *Terminating at Sheung Wan between 6.00 a.m. and 8.10 a.m.	6.00 a.m. – 10.40 a.m. (from Tai Po Central) 10.00 a.m. – 12.00 midnight (from Central)	5 – 25 mins	9 DD buses of capacity not exceeding 146 (CTB) 9 DD buses of capacity not exceeding 155 (KMB)	CTB/KMB
603 (Ping Tin – Central (Central Ferry Piers))	Mon – Sat 5.20 a.m. – 11.30 p.m. (from Ping Tin) 7.35 a.m. – 12.30 a.m. (from Central) Sun & PH 5.20 a.m. – 11.30 p.m. (from Ping Tin) 7.10 a.m. – 12.30 a.m. (from Central)	5 – 30 mins	21 DD buses of capacity not exceeding 141	KMB
H1/H2(special departures) (Central Ferry Piers (Pier 6) - Tsim Sha Tsui (Hankow Road)	10.00 a.m. – 4.00 p.m. (from Central) 11.30 a.m. – 5.30 p.m. (from Tsim Sha Tsui)	60 mins	3 DD buses of capacity not exceeding 131	NWFB

(b) To / from West Rail Line Tsuen Wan West Station / Tsuen Wan Public Landing Steps Pier

Route	Operating hours	Frequency	Capacity	Operator
234A (Sea Crest Villa – Tsuen Wan West Station PTI)	6.00 a.m. – 12.00 midnight (from Sea Crest Villa) 6.30 a.m. – 12.30 a.m. (from Tsuen Wan West)	8 – 25 mins	5 DD buses of capacity not exceeding 141	KMB
234B (Tsuen Wan West Station PTI – Sea Crest Villa)	5.50 a.m. – 11.20 p.m. (from Sea Crest Villa) 5.50 a.m. – 11:00 p.m. (from Tsuen Wan West)	12 – 30 mins	6 DD buses of capacity not exceeding 125	KMB
31 (Tsuen Wan West Station PTI – Shek Lei) (Circular)	6.00 a.m. – 12.15 a.m.	12 – 20mins	5 DD buses of capacity not exceeding 125	KMB
33 (Tsuen Wan West Station PTI – Yau Tong PTI)	6.55 a.m. – 11.05 p.m. (from Yau Tong) 6.30 a.m. – 11.00 p.m. (from Tsuen Wan West) (No service on Sat, Sun & PHs)	15 – 30mins	9 DD buses of capacity not exceeding 155	KMB
33B (Tsuen Wan West Station PTI – Yau Tong PTI)	6.55 a.m. – 10.05 p.m. (from Yau Tong) 6.30 a.m. – 09.30 p.m. (from Tsuen Wan West) (Service on Sat, Sun & PHs)	20 – 30mins	9 DD buses of capacity not exceeding 155	KMB
34 (Kwai Shing (Central) – Bayview Garden)	5.35 a.m. – 11.30 p.m. (from Kwai Shing) 6.05 a.m. – 12.20 a.m. (from Bayview Garden)	15 – 20 mins	8 DD buses of capacity not exceeding 125	KMB
36 (Tsuen Wan West Station PTI – Lei Muk Shue Estate PTI) (Circular)	5.30 a.m. – 12.25 a.m.	10 – 20 mins	7 DD buses of capacity not exceeding 155	KMB
39A (Tsuen Wan West Station PTI – Allway Gardens) (Circular)	5.50 a.m. – 12.40 a.m.	20 – 25 mins	3 DD buses of capacity not exceeding 155	KMB
43 (Cheung Hong – Tsuen Wan West Station PTI)	5.40 a.m. – 12.00 midnight (from Cheung Hong) 6.00 a.m. – 12.15 a.m. (from Tsuen Wan West)	8 – 20 mins	11 DD buses of capacity not exceeding 141	KMB

Route	Operating hours	Frequency	Capacity	Operator								
43P (Hong Kong Science Park – Tsuen Wan West Station PTI)	<p>Mon – Fri 7.20 a.m. – 8.20 a.m. (from Tsuen Wan West)</p> <p>5.55 p.m. – 6.39 p.m. (from Science Park)</p> <p>Sat 7.30 a.m. – 8.00 a.m. (from Tsuen Wan West)</p> <p>6.10 p.m. – 6.30 p.m. (from Science Park)</p> <p>(No service on Sun & PHs)</p>	<p>Mon – Fri</p> <table border="1"> <tr><td>From Tsuen Wan</td><td>From Science Park</td></tr> <tr><td>7.20 a.m., 7.32 a.m., 7.44 a.m., 7.56 a.m., 8.20 a.m.</td><td>5.55 p.m., 6.05 p.m., 6.15 p.m., 6.27 p.m., 6.39 p.m.</td></tr> </table> <p>Sat</p> <table border="1"> <tr><td>From Tsuen Wan</td><td>From Science Park</td></tr> <tr><td>7.30 a.m., 7.50 a.m., 8.00 a.m.</td><td>6.10 p.m., 6.20 p.m., 6.30 p.m.</td></tr> </table>	From Tsuen Wan	From Science Park	7.20 a.m., 7.32 a.m., 7.44 a.m., 7.56 a.m., 8.20 a.m.	5.55 p.m., 6.05 p.m., 6.15 p.m., 6.27 p.m., 6.39 p.m.	From Tsuen Wan	From Science Park	7.30 a.m., 7.50 a.m., 8.00 a.m.	6.10 p.m., 6.20 p.m., 6.30 p.m.	5 DD buses of capacity not exceeding 141 (redeployed from 43X)	KMB
From Tsuen Wan	From Science Park											
7.20 a.m., 7.32 a.m., 7.44 a.m., 7.56 a.m., 8.20 a.m.	5.55 p.m., 6.05 p.m., 6.15 p.m., 6.27 p.m., 6.39 p.m.											
From Tsuen Wan	From Science Park											
7.30 a.m., 7.50 a.m., 8.00 a.m.	6.10 p.m., 6.20 p.m., 6.30 p.m.											
43B (Cheung Ching – Tsuen Wan West Station PTI)	<p>5.40 a.m. – 11.50 p.m. (from Cheung Ching)</p> <p>6.15 a.m. – 12.00 midnight (from Tsuen Wan West)</p>	10 – 25 mins	10 DD buses of capacity not exceeding 141	KMB								
43X (Yiu On – Tsuen Wan West Station PTI)	<p>5.30 a.m. – 11.55 p.m. (from Yiu On)</p> <p>5.30 a.m. – 12.30 a.m. (from Tsuen Wan West)</p>	6 – 20 mins	23 DD buses of capacity not exceeding 141	KMB								
268M (Park YOHO – Tsuen Wan West Station PTI)	<p>7.00 a.m. – 10.30 p.m. (from Park YOHO)</p> <p>10.20 a.m. – 12.50 a.m. (from Tsuen Wan West)</p>	20 – 30 mins	4 SD buses of capacity not exceeding 90	KMB								
273P (Tai Wo – Tsuen Wan West Station PTI)	<p>Mon – Fri 7.25 a.m. – 8.10 a.m.</p> <p>Sat 7.30 a.m. – 8.10 a.m.</p>	15 – 20 mins	5 DD buses of capacity not exceeding 141	KMB								
273C (Kau Lung Hang – Tsuen Wan West Station PTI)	6.55 a.m.	N.A.	1 DD bus of capacity not exceeding 141	KMB								
290 (Choi Ming PTI – Tsuen Wan West Sftation PTI)	<p>5.10 a.m. – 11.50 p.m. (from Choi Ming)</p> <p>5.30 a.m. – 11.50 p.m. (from Tsuen Wan West)</p>	10 – 20 mins	11 DD buses of capacity not exceeding 141	KMB								

Route	Operating hours	Frequency	Capacity	Operator
290A (Choi Ming PTI – Tsuen Wan West Station PTI)	5.15 a.m. – 12.20 a.m. (from Choi Ming) 5.40 a.m. – 12.20 a.m. (from Tsuen Wan West)	10 – 25 mins	11 DD buses of capacity not exceeding 141	KMB
290B (Tseung Kwan O Industrial Estate – Tsuen Wan West Station PTI)	5.15 p.m. (No service on Sat, Sun & PHs)	N.A.	1 DD buses of capacity not exceeding 155	KMB
290X (Lohas Park Station PTI – Tsuen Wan West Station PTI)	5.30 a.m. – 9.50 p.m. (from Lohas Park) 7.30 a.m. – 11.05 p.m. (from Tsuen Wan West)	20 – 35 mins	10 DD buses of capacity not exceeding 141	KMB
930 (Tsuen Wan West Station PTI – Exhibition Centre Station PTI)	6.00 a.m. – 12.05 a.m. (from Tsuen Wan West) 11.10 a.m. – 12.55 a.m. (from Exhibition Centre Station)	10 – 30 mins	8 DD buses of capacity not exceeding 137 (a.m.) 13 DD buses of capacity not exceeding 137 (p.m.)	CTB
930A (Tsuen Wan West Station PTI – Exhibition Centre Station PTI)	7.50 a.m., 8.00 a.m., 8.10 a.m. (from Tsuen Wan West) 5.45 p.m., 6.05 p.m. (from Exhibition Centre Station) (No service on Sat, Sun & PHs)	N.A.	3 DD buses of capacity not exceeding 137 (a.m.) 2 DD buses of capacity not exceeding 137 (a.m.)	CTB
N290 (Tsuen Wan West Station PTI to Lohas Park Station PTI)	12.50 a.m., 1.20 a.m. (from Tsuen Wan West)	N.A.	2 DD buses of capacity not exceeding 155	KMB
N930 (Causeway Bay (Moreton Terrace) – Tsuen Wan (Discovery Park))	1.35 a.m. (from Causeway Bay (Moreton Terrace)) 5.15 a.m., 5.35 a.m. (from Tsuen Wan (Discovery Park))	N.A.	2 DD buses of capacity not exceeding 137	CTB
K92 (Tsuen Wan West Station PTI – Kam Sheung Road)	Emergency Bus service (TML)	N.A.	At least 1 DD bus of capacity not exceeding 170	KMB
K94 (Tsuen Wan West Station PTI – Yuen Long Station)	Emergency Bus service (TML)	N.A.	At least 1 DD bus of capacity not exceeding 170	KMB

(c) To / from Tuen Mun Ferry Terminal and Tuen Mun Ferry Pier

Route	Operating hours	Frequency	Capacity	Operator
59A (Tuen Mun Pier Head – Kwai Fong (Kwai Tsui Estate))	7.00 a.m. – 4.30 p.m. (from Tuen Mun)	6 – 60 mins	15 DD buses of capacity not exceeding 155	KMB
	10.30 a.m. – 7.30 p.m. (from Kwai Tsui Estate)			
59M (Tuen Mun Pier Head – Tsuen Wan Station)	5.30 a.m. – 12.00 midnight (from Tuen Mun)	3 – 20 mins	23 DD buses of capacity not exceeding 155	KMB
	6.10 a.m. – 12.46 a.m. (from Tsuen Wan)			
59X (Tuen Mun Pier Head – Mong Kok East Station)	5.15 a.m. – 11.30 p.m. (from Tuen Mun)	3 – 14 mins	28 DD buses of capacity not exceeding 155	KMB
	6.20 a.m. – 12.40 a.m. (from Mong Kok)			
259B (Tuen Mun Pier Head to Tsim Sha Tsui)	7.20 a.m., 7.35 a.m, 7.45 a.m.	N.A.	3 DD buses of capacity not exceeding 155	KMB
259D (Yuet Wu Villa – Lei Yue Mun Estate)* *special trips	6.55 a.m. – 7.40 a.m. (AM peak only, no service on Sun & PHs)	15 mins	4 DD buses of capacity not exceeding 141	KMB
962A (Yuet Wu Villa to Admiralty Station (West))	7.00 a.m. – 8.20 a.m. (AM peak only, no service on Sun & PHs)	10 – 15 mins	8 DD buses of capacity not exceeding 137	CTB
B3 (Tuen Mun Pier Head – Shenzhen Bay Port)	6.10 a.m. – 10.40 p.m. (from Tuen Mun)	15 – 30 mins	3 DD bus of capacity not exceeding 118	CTB
	6.55 a.m. – 12.20 a.m. (from Shenzhen Bay Port)			
N260 (Tuen Mun Pier Head – Mei Foo)	12.00 midnight – 5.30 a.m. (from Tuen Mun)	15 – 25 mins	8 DD buses of capacity not exceeding 155	KMB
	12.15 a.m. – 6.00 a.m. (from Mei Foo)			
506 (Tuen Mun Ferry Pier – Siu Lun)	5.30 a.m. – 12.30 a.m. (from Tuen Mun Ferry Pier)	4 – 10 mins	14 DD buses of capacity not exceeding 124	MTRCL
	5.45 a.m. – 12.50 a.m. (from Siu Lun)			

**Temporary Terminal Arrangement for
“A”, “E” and “R” Bus Routes of NLL Situation**

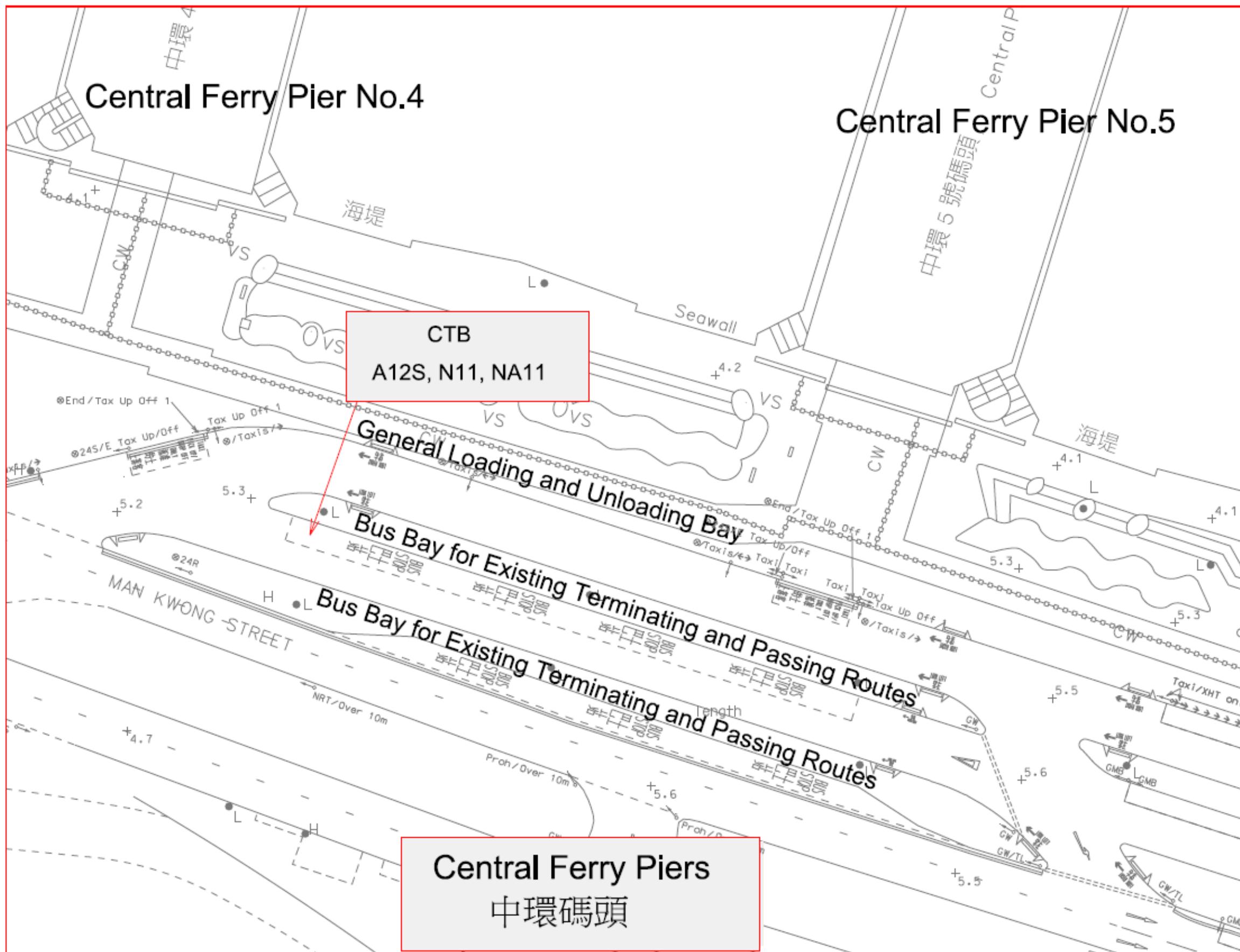
Region	Origin and Destination of “A”, “E” and “R” Routes	Temporary Terminating Point	Remarks
Hong Kong Island	A10 (Ap Lei Chau Estate – Airport (Ground Transportation Centre))	Inner loading and unloading bay outside Pier No. 5, Central Ferry Pier	Please refer to the stopping arrangement shown on Plan I .
	A11 (North Point Ferry Pier – Airport (Ground Transportation Centre))		
	A12 (Siu Sai Wan (Island Resort) – Airport (Ground Transportation Centre))		
	A17 – suspended (Shum Wan Public Transport Interchange – Airport (Ground Transportation Centre))		
	E11 (Causeway Bay (Tin Hau) – AsiaWorld-Expo)		
	E11A (Causeway Bay (Tin Hau) – AsiaWorld-Expo)		
	E11S (Yat Tung Estate Public Transport Terminus To Causeway Bay (Tin Hau))		
	N11 (Central (Macau Ferry Pier) – Airport (Ground Transportation Centre))		
	NA11 (North Point Ferry Pier- Airport (Ground Transportation Centre))		
	NA12 (Siu Sai Wan (Island Resort)- Airport (Ground Transportation Centre))		
Kowloon	A20 (Hung Hom Station – Airport (Ground Transportation Centre))	Tsuen Wan West Station Bus Terminus	Please refer to the stopping arrangement shown on Plan II .
	A21 (Hung Hom Station - Airport (Ground Transportation Centre))		
	A22 (Lam Tin Station - Airport (Ground Transportation Centre))		
	A23 (Tsz Wan Shan (North) – Airport (Ground Transportation Centre))		
	A25 (Kai Tak – Airport (Ground Transportation Centre))		
	A26 (Yau Tong PTI – Airport (Ground Transportation Centre))		
	E21(Tai Kok Tsui (Island Harbourview) – AsiaWorld-Expo)		
	E21A (Ho Man Tin (Oi Man Estate) – Tung Chung (Yat Tung Estate) Bus Terminus)		
	E21B (Ho Man Tin (Oi Man Estate) – Tung Chung (Yat Tung Estate) Bus Terminus)		
	E21C (Tai Kok Tsui (Island Harbourview) - Airport (Aircraft Maintenance Area))		

Region	Origin and Destination of “A”, “E” and “R” Routes	Temporary Terminating Point	Remarks
	E21D (Tai Kok Tsui (Island Harbourview) – AsiaWorld-Expo)		
	E21X Tung Chung (Mun Tung Estate) to Hung Hom Station)		
	E22 (Lam Tin (North) – AsiaWorld-Expo)		
	E22P (Yau Tong PTI – AsiaWorld-Expo)		
	E22X (Yau Tong PTI – AsiaWorld-Expo)		
	E23 (Tsz Wan Shan (South) - Airport (Ground Transportation Centre))		
	N21 (Star Ferry - Airport (Ground Transportation Centre))		
	N21A (Star Ferry - Airport (Ground Transportation Centre))		
	N23 (Tsz Wan Shan (North) – Tung Chung Station Bus Terminus)	Tsuen Wan West Station Bus Terminus	Please refer to the stopping arrangement shown on Plan II .
	N26 (Yau Tong PTI – Tung Chung Station Bus Terminus)		
	NA20 (Whampoa Garden – Airport (Ground Transportation Centre))		
	NA21 Hong Kong Port of Hong Kong-Zhuhai-Macao Bridge PTI to Tai Kok Tsui (Hoi Fai Road)		
NT East	A29 (Tseung Kwan O (Po Lam PTI) – Airport (Ground Transportation Centre))	Tsuen Wan West Station Bus Terminus	Please refer to the stopping arrangement shown on Plan II .
	A29P (Tseung Kwan O Station PTI – Airport (Ground Transportation Centre))		
	A41 (Sha Tin (Yu Chui Court) - Airport (Ground Transportation Centre))		
	A41P (Wu Kai Sha Railway Station - Airport (Ground Transportation Centre))		
	A47X (Tai Po (Fu Hang – Airport (Ground Transportation Centre))		
	E22A (Tseung Kwan O (Hong Sing Garden) – AsiaWorld-Expo)		
	E22C (Tseung Kwan O (Tiu Keng Leng Station PTI) – Airport (Aircraft Maintenance Area))		
	E22S (Tung Chung (Yat Tung PTI) –Tsueng Kwan O (Po Lam PTI))		
	E41 (Tai Po Tau – AsiaWorld-Expo)		
	E42 (Sha Tin (Pok Hong) - Airport (Ground Transportation Centre))		

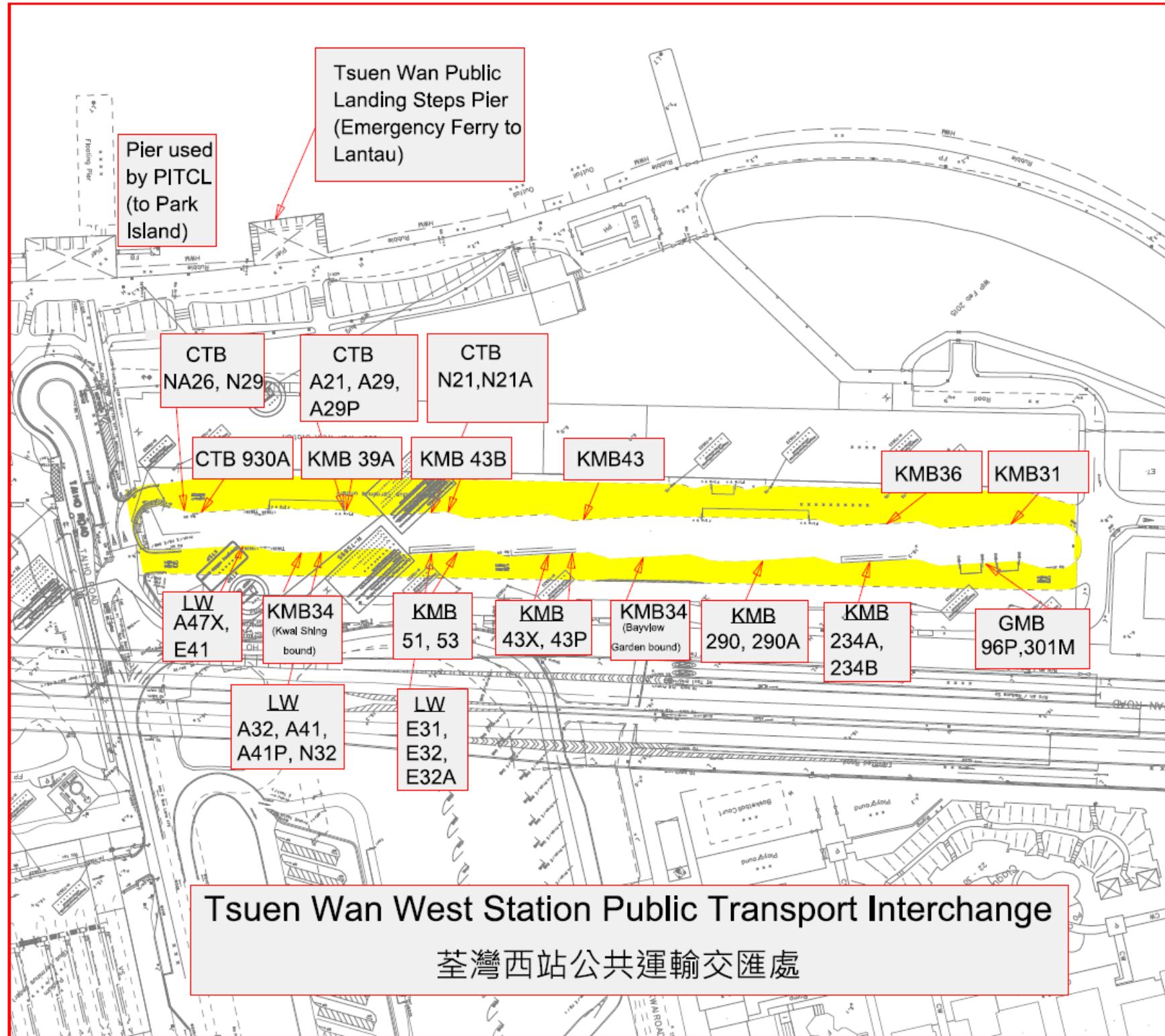
Region	Origin and Destination of "A", "E" and "R" Routes	Temporary Terminating Point	Remarks
	E42C (Sha Tin (Pok Hong) - Aircraft Maintenance Area) E42P (Tung Chung (Yat Tung Estate Public Transport Terminus) to Sha Tin (Pok Hong)) R42 (Tai Wai Station PTI - Disneyland Resort PTI) N29 (Tseung Kwan O (Hong Sing Garden) – Tung Chung Station Bus Terminus) N42 (Ma On Shan (Yiu On) – Airport/Tung Chung Station Bus Terminus) NA29 (Tseung Kwan O (Po Lam PTI) – Airport (Ground Transportation Centre)) NA40 (Airport (Ground Transportation Centre) – Wu Kai Sha Station) NA41 (Airport (Ground Transportation Centre) –Sha Tin (Shui Chuen O)) NA47 (Airport (Ground Transportation Centre) –Tai Po (Fu Heng))		
NT West – Tsuen Wan & Kwai Tsing	A31 (Tsuen Wan (Nina Tower Bus Terminus) – Airport (Ground Transportation Centre)) A32 (Kwai Chung Estate) – Airport (Ground Transportation Centre)) A38 (Tsuen Wan (Allway Gardens) – Airport (Ground Transportation Centre)) E31 (Tsuen Wan (Discovery Park Bus Terminus) - Tung Chung (Yat Tung Estate PTI)) E32 (Kwai Fong Station – AsiaWorld-Expo) E32A (Kwai Fong Station – Tung Chung Development Pier) N31 (Tsuen Wan (Discovery Park Bus Terminus) – Airport (Ground Transportation Centre)) NA31 (Airport (Ground Transportation Centre) –Tsuen Wan (Nina Tower)) NA32 (Airport (Ground Transportation Centre) –Kwai Chung Estate)	Tsuen Wan West Station Bus Terminus	Please refer to the stopping arrangement shown on Plan II .
NT West – Tuen Mun, Yuen Long, Tin Shui Wai and North District	A33 (Tuen Mun Road Bus-Bus Interchange - Airport (Ground Transportation Centre)) A33X (Fu Tai - Airport (Ground Transportation Centre)) A34 (Hung Shui Kiu (Hung Yuen Road) - Airport (Ground Transportation Centre)) A36 (Kam Sheung Road Station – Airport (Ground Transportation Centre))	Wu Chui Road westbound outside Tuen Mun Pier Head Bus Terminus	Please refer to the stopping arrangement shown on Plan III .

Region	Origin and Destination of “A”, “E” and “R” Routes	Temporary Terminating Point	Remarks
	A37 (Long Ping Station – Airport (Ground Transportation Centre))		
	A43 (Fanling (Luen Wo Hui) - Airport (Ground Transportation Centre))		
	A43P (Fanling (Luen Wo Hui) – Airport (Ground Transportation Centre) (via Lok Ma Chau))		
	E33 (Tuen Mun Central - Airport (Ground Transportation Centre))		
	E33P (Siu Hong Station (South) – Airport (Ground Transportation Centre))		
	E36 (Yuen Long (Pat Heung Road) - Airport (Ground Transportation Centre))		
	E36S (Yuen Long ((Ma Wang Road) - Airport (Ground Transportation Centre))		
	E36P (Yuen Long (Sheung Tsuen) - AsiaWorld-Expo)		
	E36A (Yuen Long (Tak Yip Street) – Tung Chung (Yat Chung Estate Public Transport Terminus))		
	E37 (Tin Shui Wai Town Centre - Airport (GTC))		
	E37C (Tin Shui Wai Town Centre – Airport (Aircraft Maintenance Area))		
	E43 (Fanling (WahMing) - Tung Chung Development Pier)		
	R33 (Tuen Mun Station - Disneyland Resort)		
	N30 (Yuen Long Station – Airport (Cheong Tat Road))		
	N42A (Fanling (Luen Wo Hui) – Tung Chung Station Bus Terminus)		
	NA33 (Fu Tai – Airport (Cathay Pacific City))		
	NA36 (Kam Sheung Road Station – Airport (Cathay Pacific City))		
	NA37 (Tin Shui Wai Town Centre - Airport (Cathay Pacific City))		
	NA43 (Hong Kong-Zhuhai-Macao Bridge (Hong Kong Port) Public Transport Interchange) –Fanling (Luen Wo Hui))		

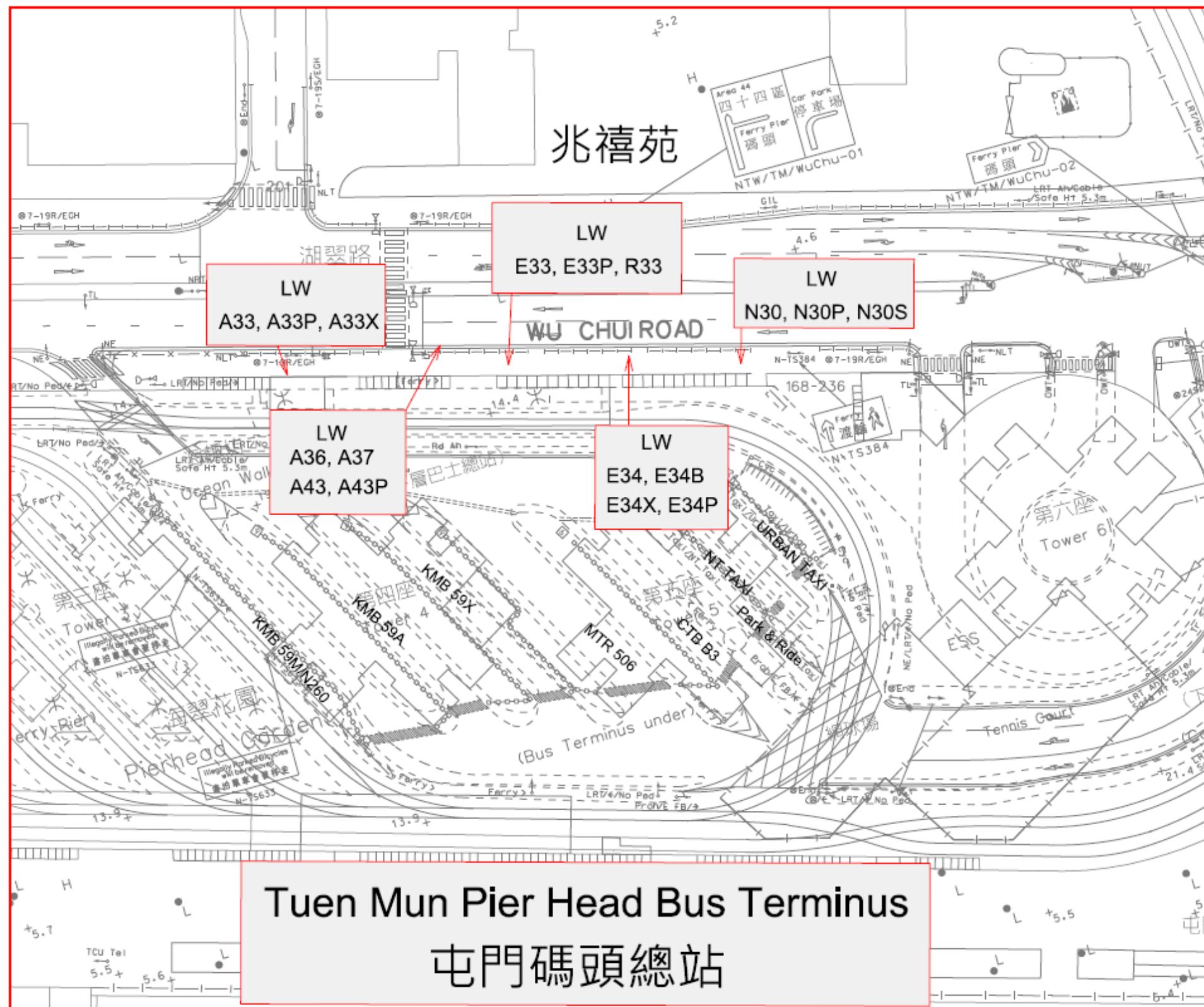
Plan I



Plan II



Plan III



Emergency Bus Route TE17 (Tsuen Wan West – Tsing Yi Station) by MTRCL

Tsuen Wan West Station ➔ Tsing Yi Station

Routing:

Tsuen Wan West PTI, Tai Ho Road, Yeung Uk Road, Texaco Road, Tsuen Tsing Interchange, Tsing Tsuen Road, Tsm Kon Shan Interchange, Tsing King Road, Tsing Yi Station

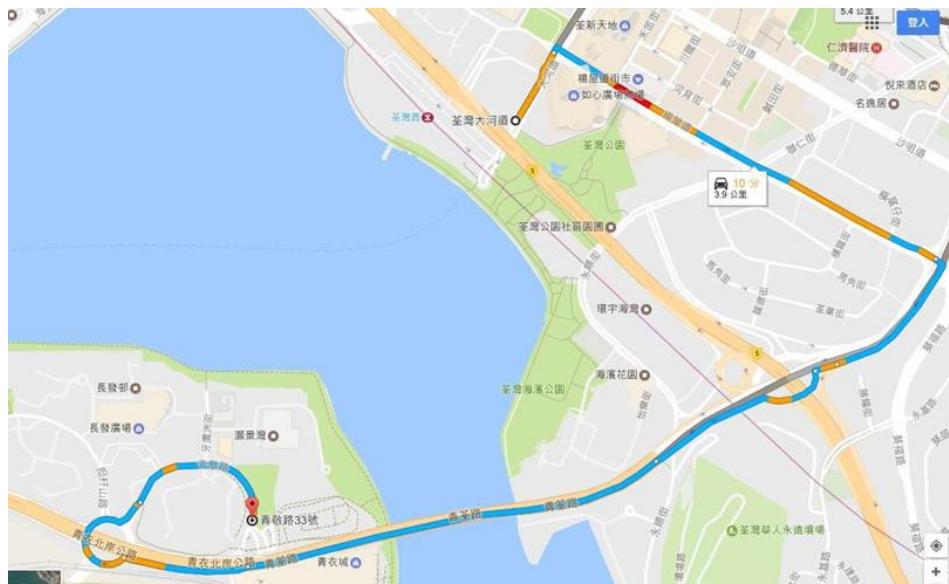
Boarding point: Bus stop of KMB Route 39A in Tsuen Wan West PTI

Alighting point: Tsing Yi Station General-lay-by under Tsing Tsuen Road

Route length: 3.9km

Journey time: 15 minutes

Expected fleet required: 15 Single Deck Buses



Boarding point: Tsuen Wan West PTI KMB Route 39A bus stop	Alighting point: Tsing Yi Station Tsing King Road

Tsing Yi Station ➔ Tsuen Wan West Station

Routing: Tsing Yi Station, Tsing King Road, Tam Kon Shan Interchange, Tsing Tsuen Road, Tsuen Tsing Interchange, Texaco Road, Yeung Uk Road, Tai Ho Road, Tsuen Wan West PTI

Boarding point: Tsing Yi Station General-lay-by under Tsing Tsuen Road
Alighting point: Alighting bay of KMB routes in Tsuen Wan West PTI



Route length: 3.6km

Journey time: 15 minutes

Expected fleet required: 15 Single Deck Buses

Boarding point: Tsing Yi Station Tsing King Road (under Tsing Tsuen Road)	Alighting point: Tsuen Wan West PTI alighting area
	

Urgent By Fax (2745 6779)

Our Ref : TDNR 140/190-23

Your Ref. :

Tel :

Fax :

Manager, Long Win
Bus Co. Ltd., 9 Po Lun
Street,
Lai Chi Kok, Kowloon
(Attn:)

xx xxx 20xx

Dear Sir,

Public Bus Services Ordinance (Cap. 230)

Schedule of Service - Amendments

Air-Conditioned North Lantau Shuttle Route No. S64

Tung Chung (Yat Tung Estate Public Transport Terminus) –

Airport (Passenger Terminal Building) (Circular)

Air-Conditioned North Lantau External Overnight Route No. N64

Airport (Ground Transportation Centre) –

Tung Chung (Yat Tung Estate Public Transport Terminus)

In accordance with the provisions of section 16A(1)(a), (3) and (4) of the Public Bus Services Ordinance (Cap. 230), I hereby give notice that your Company is required to divert the journeys of routes S64, S64C, S64P, S64X and N64 via Tung Chung Development Pier during the no land link to/from Lantau Island and Chek Lap Kok.

With reference to your letter dated xx xxx 20xx, you proposed and I hereby confirm my agreement to the introduction of the above temporary bus service with immediate effect until 23.59 hrs today. Operation of this bus service shall be in accordance with the official Schedule of Service, a copy of which is attached.

Please put up notices to inform passengers of the above change.

Yours faithfully,

[CTO (Regional)] for
Commissioner for Transport

c.c.

External

CP(CSP Traffic)
CP(DC LTDIST)
CP(DC APTDIST)
DO/Islands
AAHK (fax: 2183 2276)
MTRCL (fax: 2993 7719)
ES/TCU
CTB
NLB

Internal

PNT2
PM
CB/L
CIM1
CIM2
CN/SW
SB/L1
SN/Is1
SN/Is2
SIM3
TN/Is1
TN/Is2
TB/L1
1823
All related route files

Urgent By Fax (2605 5811)

Our Ref : NR 140/190-23

Your Ref. :

Tel :

Fax :

Operations Manager (Franchised Two)

Citybus Limited,

8 Chong Fu Road,

Chai Wan.

(Attn: Mr. Louis Kung)

xx xxx 20xx

Dear Sir,

Public Bus Services Ordinance (Cap. 230)

Schedule of Service - Amendments

North Lantau Shuttle Route No. S52

**Tung Chung (Yat Tung Estate Public Transport Terminus) –
Airport (Aircraft Maintenance Area)**

In accordance with the provisions of section 16A(1)(a), (3) and (4) of the Public Bus Services Ordinance (Cap. 230), I hereby give notice that your Company is required to divert the journeys of routes S52 and S52P via Tung Chung Development Pier during the no land link to/from Lantau Island and Chek Lap Kok.

With reference to your letter dated xx xxx 20xx, you proposed and I hereby confirm my agreement to the introduction of the above temporary bus service with immediate effect until 23.59 hrs today. Operation of this bus service shall be in accordance with the official Schedule of Service, a copy of which is attached.

Please put up notices to inform passengers of the above change.

Yours faithfully,

[CTO (Regional)] for
Commissioner for Transport

c.c.

External

CP(CSP Traffic)
CP(DC LTDIST)
CP(DC APTDIST)
DO/Islands
AAHK (fax: 2183 2276)
MTRCL (fax: 2993 7719)
ES/TCU
LWB
NLB

Internal

PNT2
PM
CB/L
CIM1
CIM2
CN/SW
SB/L1
SN/Is1
SN/Is2
SIM3
TN/Is1
TN/Is2
TB/L1
1823
All related route files

LW Route No. S64

Air-Conditioned North Lantau Shuttle Route No. S64

ROUTE

TUNG CHUNG (YAT TUNG ESTATE PUBLIC TRANSPORT TERMINUS) to AIRPORT (PASSENGER TERMINAL BUILDING) (via TUNG CHUNG STATION BUS TERMINUS) (CIRCULAR) : via Yat Tung Street, Chung Yan Road, Yu Tung Road, Shun Tung Road, Tat Tung Road, Mei Tung Street, Tung Chung Station Bus Terminus, Mei Tung Street, Tat Tung Road, Shun Tung Road, **Tung Chung Waterfront Road, Tung Chung Development Ferry Pier, Tung Chung Waterfront Road, Chek Lap Kok South Road, Scenic Road, unnamed road, Chun Ming Road, Scenic Road, Chun Wan Road, Chun Wan Road Interchange, Catering Road West, Catering Road East, Chun Wan Road Interchange, Scenic Road, East Coast Road, Airport Road, Cheong Lin Road, Cheong Tat Road, Airport North Interchange, Airport Road, Airport South Interchange, Airport Road, East Coast Road, Scenic Road, unnamed road, Chun Ming Road, Scenic Road, Chun Wan Road, Chun Wan Road Interchange, Catering Road West, Catering Road East, Chun Wan Road Interchange, Scenic Road, Chek Lap Kok South Road, Tung Chung Waterfront Road, Tung Chung Development Ferry Pier, Tung Chung Waterfront Road, Shun Tung Road, Tat Tung Road, Mei Tung Street, Tung Chung Station Bus Terminus, Mei Tung Street, Tat Tung Road, Shun Tung Road, Yu Tung Road, Chung Yan Road and Yat Tung Street.**

Special departures are operated as route "S64X" with the following routeings:

TUNG CHUNG (YAT TUNG ESTATE PUBLIC TRANSPORT TERMINUS) to AIRPORT (PASSENGER TERMINAL BUILDING) (CIRCULAR) : via Yat Tung Street, Chung Yan Road, Yu Tung Road, Shun Tung Road, **Tung Chung Waterfront Road, Tung Chung Development Ferry Pier, Tung Chung Waterfront Road, Chek Lap Kok South Road, Scenic Road, unnamed road, Chun Ming Road, Scenic Road, Chun Wan Road Interchange, Catering Road East, Chun Wan Road Interchange, Scenic Road, East Coast Road, Airport Road, Cheong Lin Road, Cheong Tat Road, Airport North Interchange, Airport Road, Airport South Interchange, Airport Road, East Coast Road, Scenic Road, unnamed road, Chun Ming Road, Scenic Road, Chun Wan Road Interchange, Catering Road East, Chun Wan Road Interchange, Scenic Road, Chek Lap Kok South Road, Tung Chung Waterfront Road, Tung Chung Development Ferry Pier, Tung Chung Waterfront Road, Shun Tung Road, Yu Tung Road, Chung Yan Road and Yat Tung Street.**

Special departures are operated as route "S64C" with the following routeings:

TUNG CHUNG (YAT TUNG ESTATE PUBLIC TRANSPORT TERMINUS) to AIRPORT (CARGO AND CATERING AREA) (via TUNG CHUNG STATION BUS TERMINUS) (CIRCULAR) : via Yat Tung Street, Chung Yan Road, Yu Tung Road, Shun Tung Road, Tat Tung Road, Mei Tung Street, Tung Chung Station Bus Terminus, Mei Tung Street, Tat Tung Road, Shun Tung Road, **Tung Chung Waterfront Road, Tung Chung Development Ferry Pier, Tung Chung Waterfront Road, Chek Lap Kok South Road, Scenic Road, unnamed road, Chun Ming Road, Scenic Road, *(Chun Wan Road, Chun Wan Road Interchange, Catering Road West, Catering Road East, Chun Wan Road Interchange, Scenic Road, Chek Lap Kok South Road, **Tung Chung Waterfront Road, Tung Chung Development Ferry Pier, Tung Chung Waterfront Road, Shun Tung Road, Tat Tung Road, Tung Chung Station Bus Terminus, Tat Tung Road, Shun Tung Road, Yu Tung Road, Chung Yan Road and Yat Tung Street.)****

(* Special short-working trips are operated from Chun Wan Road outside Super Terminal One to Yat Tung Estate Public Transport Terminus at 13 minutes interval between 3:08 p.m. and 6:49 p.m. from Mondays to Saturdays except public holidays.)

Special departures are operated as route "S64P" with the following routeing :

TUNG CHUNG STATION BUS TERMINUS to CATERING ROAD EAST to TUNG CHUNG (YAT TUNG ESTATE PUBLIC TRANSPORT TERMINUS) (VIA TUNG CHUNG NEW DEVELOPMENT FERRY PIER) : via Tat Tung Road, Shun Tung Road, Tung Chung Waterfront Road, Tung Chung Development Ferry Pier, Tung Chung Waterfront Road, Chek Lap Kok South Road, Scenic Road, unnamed road, Chung Ming Road, Scenic Road, Chun Wan Road, Chun Wan Road Interchange, Catering Road West, Catering Road East, Chun Wan Road Interchange, Scenic Road, Chek Lap Kok South Road, Tung Chung Waterfront Road, Tung Chung Development Ferry Pier, Tung Chung Waterfront Road, Shun Tung Road, Tat Tung Road, Mei Tung Street, Tung Chung Station Bus Terminus, Mei Tung Street, Tat Tung Road, Shun Tung Road, Yu Tung Road, Chung Yan Road and Yat Tung Street.

TIMETABLE

Operation under no land link upon Transport Department's notification
Frequency may be adjusted according to demand
Service may be curtailed in short notice.

FARETABLE

Route S64 - Tung Chung (Yat Tung Estate)

Tung Chung (Yat Tung Estate)

\$3.60	Regal Airport Hotel Cheong Tat Road
\$3.60	\$3.60 Scenic Road opp. Cathy City
\$3.60	\$3.60 \$3.10 Tung Chung (Yat Tung Estate)

Route S64X - Tung Chung (Yat Tung Estate)

Tung Chung (Yat Tung Estate)

\$3.60	Regal Airport Hotel Cheong Tat Road
\$3.60	\$3.60 Scenic Road opp. Cathy City
\$3.60	\$3.60 \$3.10 Tung Chung (Yat Tung Estate)

Route S64C - From Tung Chung (Yat Tung Estate)

Tung Chung (Yat Tung Estate)

\$3.60	Scenic Road opp. Cathy City
\$3.60	\$3.10 Tung Chung (Yat Tung Estate)

Route S64P - Tung Chung Station Bus Terminus

Tung Chung Station Bus Terminus

\$3.60	Scenic Road opp. Cathay City
\$3.60	\$3.10 Tung Chung (Yat Tung Estate)

Half fare concession will be given to senior citizen aged 65 or over and child below the age of 12.

Below-scale fare under Section 13(4)(b), Public Bus Service Ordinance.

CONCESSIONARY FARE FOR BUS-BUS INTERCHANGE AT TUNG CHUNG TOWN CENTRE

A discount of \$1.00 (\$0.50 for senior citizen aged 65 or over and child aged below 12) is offered for passengers using Octopus and make the following interchange:

- from Route Nos. S64, S64X, S64C, S64P to LWB Route Nos. E32, E33, E33P, E41 or E42/C/P (New Territories bound); or
- from LWB Route Nos. E32, E33, E33P, E41 or E42/C/P (Chek Lap Kok bound) to Route Nos. S64, S64X, S64C, S64P.

To be eligible for the above fare concession, the two legs of the journey should be paid by the same Octopus card and the second leg must be made within 90 minutes (New Territories bound) or 150 minutes (Tung Chung / Airport bound) from the boarding time of the first leg. The Octopus card should not be used to travel on other bus routes and any other transport modes within the above mentioned journeys.

Only one successive discounted bus-bus interchange is allowed.

JOURNEY DISTANCE

S64: 23.6 km (round trip)

S64X: 17.4 km (round trip)

S64C: 12.7 km (round trip)

S64P: 12.5 km (round trip)

JOURNEY TIME

S64: 56 minutes (round trip) Average speed 25.3 km/h

S64X: 42 minutes (round trip) Average speed 24.8 km/h

S64C: 35 minutes (round trip) Average speed 21.8 km/h

S64P: 32 minutes (round trip) Average speed 23.4 km/h

VEHICLE ALLOCATION/CARRYING CAPACITY

8 air-conditioned double deck buses of capacity not exceeding 131.

2 air-conditioned double deck buses of capacity not exceeding 131 re-deployed from Route Nos. N30 and N31 for operation of S64X, S64C and S64P during morning peak hours on Mondays to Saturdays except public holidays.

1 air-conditioned double deck bus of capacity not exceeding 131 re-deployed from Route No. R8 for operation of S64, S64C ad S64P during morning peak hours on Mondays to Fridays except Public Holidays.

Minimum number of passengers that can be carried during a peak hour in each direction :
786 for S64; 655 for S64X; 786 for S64C; 131 for S64P

xx xxx 20xx

LW Route No. N64

Air-Conditioned North Lantau External Overnight Route
No. N64 (All Night Service)

ROUTE

AIRPORT (GROUND TRANSPORTATION CENTRE) TO TUNG CHUNG (YAT TUNG ESTATE PUBLIC TRANSPORT TERMINUS) (via TUNG CHUNG STATION)

BUS TERMINUS) : via Cheong Lin Road, Cheong Tat Road, Airport North Interchange, Airport Road, Airport South Interchange, Airport Road, East Coast Road, Scenic Road, unnamed road, Chun Ming Road, Scenic Road, Chun Wan Road, Chun Wan Road Interchange, Catering Road West, Catering Road East, Chun Wan Road Interchange, Scenic Road, Chek Lap Kok South Road, **Tung Chung Waterfront Road, Tung Chung Development Ferry Pier, Tung Chung Waterfront Road, Shun Tung Road, Tat Tung Road, Mei Tung Street, Tung Chung Station Bus Terminus, Mei Tung Street, Tat Tung Road, Shun Tung Road, Yu Tung Road, Chung Yan Road and Yat Tung Street.**

TIMETABLE

Operation under no land link upon Transport Department's notification Frequency may be adjusted according to demand.
Service may be curtailed in short notice.

FARETABLE

\$5.20 per single trip

Below-scale fare under Section 13(4)(b), Public Bus Services Ordinance.

Half fare concession will be given to senior citizen aged 65 or over and children below the age of 12

JOURNEY DISTANCE

13.6 km

JOURNEY TIME

30 minutes. Average speed 27.2 km/h

VEHICLE ALLOCATION/CARRYING CAPACITY

2 air-conditioned double deck buses of capacity not exceeding 131.

Minimum number of passengers that can be carried during the operating period: 262.

xx xxx 20xx

Citybus Route No. S52

North Lantau Shuttle Route No. S52

ROUTE

TUNG CHUNG (YAT TUNG ESTATE PUBLIC TRANSPORT TERMINUS) to AIRPORT(AIRCRAFT MAINTENANCE AREA) : via Yat Tung Street, Chung Yan Road, Yu Tung Road, Shun Tung Road, Tat Tung Road, Mei Tung Street, (Tung Chung Station Bus Terminus, Mei Tung Street, Tat Tung Road, Shun Tung Road, **Tung Chung Waterfront Road, Tung Chung Development Ferry Pier, Tung Chung Waterfront Road,** Chek Lap Kok South Road, Scenic Road, unnamed road, Scenic Road, Chun Wan Interchange, Chun Wan Road, Chun Ping Road and South Perimeter Road.)*

* Special departure is operated from Tung Chung Station to AMA at 7.35 a.m. and 7.55 a.m. from Mondays to Fridays (except public holidays).

AIRPORT(AIRCRAFT MAINTENANCE AREA) to TUNG CHUNG (YAT TUNG ESTATE PUBLIC TRANSPORT TERMINUS) : via South Perimeter Road, Chun Ping Road, Chun Wan Road, Chun Wan Interchange, Scenic Road, Chek Lap Kok South Road, **Tung Chung Waterfront Road, Tung Chung Development Ferry Pier, Tung Chung Waterfront Road,** Shun Tung Road, Tat Tung Road, Mei Tung Street, Tung Chung Station Bus Terminus, Mei Tung Street, Tat Tung Road, Shun Tung Road, Yu Tung Road, Chung Yan Road, Yat Tung Street.

Special departures are operated as route S52P on Mondays to Saturdays (except public holidays) with the following routeing:

TUNG CHUNG (YAT TUNG ESTATE PUBLIC TRANSPORT TERMINUS) to AIRPORT (ASIA AIRFREIGHT TERMINAL) (CIRCULAR): via Yat Tung Street, Chung Yan Road, Yu Tung Road, Shun Tung Road, Tat Tung Road, Mei Tung Street, Tung Chung Station Bus Terminus, Mei Tung Street, Tat Tung Road, Shun Tung Road, **Tung Chung Waterfront Road, Tung Chung Development Ferry Pier, Tung Chung Waterfront Road,** Chek Lap Kok South Road, Scenic Road, unnamed road, Scenic Road, Chun Wan Road Interchange, Chun Wan Road, Chun Ping Road, Chun Wan Road, Chun Wan Road Interchange, Scenic Road, Chek Lap Kok South Road, **Tung Chung Waterfront Road, Tung Chung Development Ferry Pier, Tung Chung Waterfront Road,** Shun Tung Road, Yu Tung Road, Chung Yan Road, Yat Tung Street and Yat Tung Estate Public Transport Terminus.

TIMETABLE

Operation under no land link upon Transport Department's notification

Frequency may be adjusted according to demand

Service may be curtailed in short notice.

FARETABLE

Route S52 - From Aircraft Maintenance Area

Aircraft Maintenance Area

#	\$4.00	Chun Ping Road outside Asia Airfreight Terminal
	\$4.00	\$3.00 Tung Chung (Yat Tung Estate)

Passengers paying fare by Octopus and travelling from Aircraft Maintenance Area to Chek Lap Kok Ferry Pier can enjoy a concessionary fare of \$3.00 when interchanging with route E21 at Chun Wan Road (opposite Airport Freight Forwarding Centre) within 45 minutes.

Route S52 - From Tung Chung (Yat Tung Estate)

Tung Chung (Yat Tung Estate)

\$4.00	Chun Wan Road outside Airfreight Forwarding Centre
\$4.00	* \$4.00 Airport (Aircraft Maintenance Area)

*Passengers paying fare by Octopus and travelling from Chun Wan Road (Airport Freight Forwarding Centre) to Aircraft Maintenance Area can enjoy a concessionary fare of \$3.00 when interchanging with route E21 at Chun Wan Road (outside Airfreight Forwarding Centre) within 45 minutes.

Route S52P

Flat Fare \$3.00

Half-fare concession will be given to senior citizen aged 65 or over and child aged below 12.

Below-scale fare under section 13(4)(b), Public Bus Services Ordinance.

CONCESSIONARY FARE FOR BUS-BUS INTERCHANGE (for Octopus Card User only)

Bus-Bus Interchange discount for Octopus Card User making the following Bus-Bus Interchange packages:

Package 1.

1st Trip (Route/Direction) : Routes E11, E21, E22, E22A, E23 (Chek Lap Kok bound)

2nd Trip (Route/Direction): Routes S52, S52P (Yat Tung Estate bound)

Fare Rule on 2nd Trip (Note 1): A discount of \$1 (\$0.5 for children below the age of 12 and senior citizens of age 65 years or above)

Time Validity: Within 150 minutes from the boarding time of the 1st trip

Suggested Interchange Location: Yu Tung Court, Shun Tung Road

Package 2.

1st Trip (Route/Direction): Route E21 (Tai Kwok Tsui bound) (for passengers paying two-way section fare at \$4)

2nd Trip (Route/Direction): Route S52 (Yat Tung Estate bound)

Fare Rule on 2nd Trip (Note 1): Free Interchange is offered

Time Validity: Within 45 minutes from the boarding time of the 1st trip

Suggested Interchange Location: Yu Tung Court, Shun Tung Road

Package 3.

1st Trip (Route/Direction): Route S56 (Airport (Passenger Terminal Building) bound)

2nd Trip (Route/Direction): Route S52 (Aircraft Maintenance Area bound) or Route S52P (Asia Airfreight Terminal bound)

Fare Rule on 2nd Trip (Note 1) Top up fare of \$0.5 (\$0.2 for children below the age of 12 and senior citizens of age 65 years or above)

Time Validity: Within 60 minutes from the boarding time of the 1st trip

Suggested Interchange Location: Aviation Fuel Tank Fame, Scenic Road

Package 4.

1st Trip (Route/Direction): Routes E11, E21, E21A, E22, E22A, E22P, E22X, E23 (Lantau bound)

2nd Trip (Route/Direction): Route S52 (Aircraft Maintenance Area bound)

Fare Rule on 2nd Trip (Note 1): A discount of \$0.5 (\$0.3 for children below the age of 12 and senior citizens of age 65 years or above)

Time Validity: Within 150 minutes from the boarding time of the 1st trip

Suggested Interchange Location: Tung Chung Fire Station, Shun Tung Road (from routes E11, E21, E21A, E22, E22A, E23); Cathay City, Chun Ming Road (from routes E22P, E22X)

Package 5.

1st Trip (Route/Direction): Long Win routes E31, E32, E33, E33P, E41, E42/C/P (Lantau bound)

2nd Trip (Route/Direction): Route S52 (Aircraft Maintenance Area bound)

Fare Rule on 2nd Trip (Note 1): A discount of \$0.5 (\$0.3 for children below the age of 12 and senior citizens of age 65 years or above)

Time Validity: Within 150 minutes from the boarding time of the 1st trip

Suggested Interchange Location: Tung Chung Fire Station, Shun Tung Road

Note:

(1) Both journeys should be paid by the same Octopus Card. The card should not be used to travel on other bus routes or any other transport modes between 1st and 2nd trip.

JOURNEY DISTANCE

11.6 km (one way) for route S52

11.3 km (circular) for route S52P

JOURNEY TIME

22 minutes (one way); Average Speed 36.6 km/h for route S52

35 minutes (circular); Average Speed 19.4 km/h for route S52P

VEHICLE ALLOCATION/CARRYING CAPACITY

5 air-conditioned double deckers of capacity not exceeding 132.

(1 air-conditioned single decker of capacity not exceeding 69 re-deployed from Route A10 during morning peak hours from Mondays to Fridays except public holidays.)

Service may be curtailed in short notice.

Air-conditioned double deckers of capacity not exceeding 141 may be deployed for substitution

Minimum number of passengers carried during a peak hour in each direction:

207 (for both S52 and S52P)

xx xxx 20xx

Citybus Route No. S56

North Lantau Shuttle Route No. S56

ROUTE

TUNG CHUNG STATION BUS TERMINUS to AIRPORT (PASSENGER TERMINAL BUILDING) (CIRCULAR) : via Mei Tung Street, Tat Tung Road, Shun Tung Road, **Tung Chung Waterfront Road, Tung Chung Development Ferry Pier, Tung Chung Waterfront Road, Wai Tung Road, Man Tung Road, Ying Tung Road, Ying Hei Road, Tung Chung Waterfront Road, Chek Lap Kok South Road, Scenic Road, East Coast Road, Airport Road, Cheong Lin Road, Cheong Tat Road, Airport North Interchange, Airport Road, Airport South Interchange, Airport Road, East Coast Road, Scenic Road, Chek Lap Kok South Road, Shun Tung Road, Tat Tung Road and Mei Tung Street.**

TIMETABLE

Operation under no land link upon Transport Department's notification

Frequency may be adjusted according to demand

Service may be curtailed in short notice.

*Departures from Tung Chung Station that operating via Tung Chung New Development Ferry Pier:-

Mondays to Fridays: 7.25 a.m., 8.25 a.m., 9.25 a.m., 10.25 a.m., 11.25 a.m., 2.30 p.m., 4.32 p.m., 5.25 p.m., 6.35 p.m., 7.27 p.m.

Saturdays: 7.25 a.m., 8.25 a.m., 9.25 a.m., 10.25 a.m., 11.25 a.m., 2.30 p.m., 3.22 p.m., 4.32 p.m., 5.25 p.m., 6.35 p.m., and 7.27 p.m.

Sundays and public holidays: 7.25 a.m., 8.55 a.m., 9.55 a.m., 10.55 a.m., 11.55 a.m., 12.55 p.m., 2.30 p.m., 3.22 p.m., 4.32 p.m., 5.25 p.m., 6.35 p.m., and 7.25 p.m.

One additional short-working journey will be operated from Wai Tung Road opposite Seaview Crescent to East Coast Road outside Cathay City at 8.27am from Mondays to Fridays (except public holidays).

#The last departure from Tung Chung Station at 11.25pm terminates at Tung Chung North Man Tung Road only.

FARETABLE

\$3.50 per single journey

Half fare concession will be given to senior citizen aged 65 or over and child aged below 12

Below-scale fare under Section 13(4)(b), Public Bus Services Ordinance

Concessionary Fare for Bus-Bus Interchange at Chek Lap Kok

- a) Free interchange from CTB route no. S52 (Yat Tung Estate bound) to route S56 (Tung Chung Station bound) is offered to passengers using Octopus.
- b) A concessionary fare of \$1.0 (\$.0.5 for senior citizen aged 65 or over and child aged below 12) is offered to passengers using Octopus and interchanging from CTB route no. S52P (Yat Tung Estate bound) to S56 (Tung Chung Station bound).

To be eligible for the above fare concessions, the two legs of the journey should be paid by the same Octopus card and the second leg must be made within 60 minutes from the boarding time of the first leg. The Octopus card should not be used to travel on other bus routes and any other transport modes in between the above-mentioned journeys.

Only one successive discounted bus-bus interchange is allowed

JOURNEY DISTANCE

15.8km

JOURNEY TIME

27 Minutes Average speed 35.1 km/h

VEHICLE ALLOCATION/CARRYING CAPACITY

2 air-conditioned double deckers of capacity not exceeding 132.

During morning peak period, the single decker is swapped with 1 air-conditioned low floor double decker of capacity not exceeding 109 from Route A21.

1 air-conditioned low floor single decker of capacity not exceeding 69 is redeployed from

Route E11 during morning peaks from Mondays to Fridays except public holidays.

Air-conditioned double deckers of capacity not exceeding 141 may be deployed for substitution

Minimum number of passengers carried during a peak hour in a direction: 316 (am), 207 (pm).

xx xxx 20xx

Urgent By Fax (2745 6779)

Our Ref.:

Your Ref.:

Tel.:

Fax:

XX XXXX 20XX

Manager, Operations
Long Win Bus Co. Ltd.
9 Po Lun Street
Lai Chi Kok
Kowloon, Hong Kong
(Attn: Mr. Andy CHEUNG)

Dear Sir,

Public Bus Services Ordinance (Cap. 230)
Schedule of Service – Amendments
Long Win: North Lantau Shuttle Route
S1 (Tung Chung Station – Airport (Ground Transportation Centre))

In accordance with the provisions of section 16A(1)(a), (3) and (4) of the Public Bus Services Ordinance (Cap. 230), I hereby give notice that your Company is required to divert the journeys of route S1 via Tung Chung Development Pier during the no land link to/from Lantau Island and Chek Lap Kok.

With reference to your letter dated xx xxx 20xx, you proposed and I hereby confirm my agreement to the introduction of the above temporary bus service with immediate effect until 23.59 hrs today. Operation of this bus service shall be in accordance with the official Schedule of Service, a copy of which is attached.

Please put up notices to inform passengers of the above change.

Yours faithfully,

[CTO (Regional)]
for Commissioner for Transport

c.c.

External

CP(CSP Traffic)
CP(DC LTDIST)
CP(DC APTDIST)
DO/Islands
AAHK (fax: 2183 2276)
MTRCL (fax: 2993 7719)
ES/TCU
CTB
NLB

Internal

PNT2
PM
CB/L
CIM1
CIM2
CN/SW
SB/L1
SN/Is1
SN/Is2
SIM3
TN/Is1
TN/Is2
TB/L1
1823
All related route files

Our Ref.: TDNR 140/190-23

Your Ref.:

Tel.:

Fax:

XX XXXX 20XX

Operations Manager (Franchised Two)
Citybus Limited,
8 Chong Fu Road, Chai Wan.
(Attn: Mr. Louis Kung)

Dear Sir,

Public Bus Services Ordinance (Cap. 230)
Schedule of Service – Amendments
CityBus: North Lantau Shuttle Route
S1 (Tung Chung Station – Airport (Ground Transportation Centre))

In accordance with the provisions of section 16A(1)(a), (3) and (4) of the Public Bus Services Ordinance (Cap. 230), I hereby give notice that your Company is required to divert the journeys of route S1 via Tung Chung Development Pier during the no land link to/from Lantau Island and Chek Lap Kok.

With reference to your letter dated XX XXXX 20XX, you proposed and I hereby confirm my agreement to the introduction of the above temporary bus service with immediate effect until 23.59 hrs today. Operation of this bus service shall be in accordance with the official Schedule of Service, a copy of which is attached.

Please put up notices to inform passengers of the above change.

Yours faithfully,

[CTO (Regional)]
for Commissioner for Transport

c.c.

External

CP(CSP Traffic)
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AAHK (fax: 2183 2276)
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ES/TCU
LWB
NLB

Internal

PNT2
PM
CB/L
CIM1
CIM2
CN/SW
SB/L1
SN/Is1
SN/Is2
SIM3
TN/Is1
TN/Is2
TB/L1
1823
All related route files

Citybus/LW Route No. S1

Air-Conditioned North Lantau Shuttle Route No. S1

ROUTE

TUNG CHUNG STATION BUS TERMINUS to ASIAWORLD-EXPO (VIA PASSENGER TERMINAL BUILDING)(CIRCULAR) : via Mei Tung Street, Tat Tung Road, Shun Tung Road, Chek Lap Kok South Road, Scenic Road, East Coast Road, Unnamed Road, Roundabout, Unnamed Road, East Coast Road, Cheung Lin Road, Airport South Interchange, Cheong Lin Road, Cheong Tat Road, Airport North Interchange, Sky City Road, Airport Expo Boulevard, Sky City Road East, Sky City Interchange, East Coast Road, Unnamed Road, Roundabout, access road to Cathay Dragon/CNAC House, Tung Fai Road, East Coast Road, Scenic Road, Chek Lap Kok South Road, **Tung Chung Waterfront Road, Tung Chung Development Pier, Tung Chung Waterfront Road, Shun Tung Road, Tat Tung Road and Mei Tung Street.**

TIMETABLE

Operation under no land link upon Transport Department's notification Frequency may be adjusted according to demand.

Service may be curtailed in short notice.

FARETABLE

\$3.50 per single journey

Below scale fare authorized under Section 13(4)(b), Public Bus Service Ordinance.

Half-fare concession will be given to senior citizen aged 65 or over and child aged below 12.

JOURNEY DISTANCE

14.6 km (round trip)

JOURNEY TIME

35 minutes

Average Speed 23.3 km/h

VEHICLE ALLOCATION/CARRYING CAPACITY

3 air-conditioned double deckers of capacity not exceeding 114 (Citybus)

Air-conditioned double deckers of capacity not exceeding 141 will be deployed for substitution to operate the above route (Citybus)

3 air-conditioned double deckers of capacity not exceeding 134 (Long Win)
(one of which will be re-deployed to operate one departure of route S64P at 6.45 p.m.
daily)

Departure at 8.10 a.m. will be operated by buses redeployed from route N30 on
Mondays to Saturdays except public holidays (Long Win)

Minimum number of passengers carried during a peak hour in each direction : 456
(Citybus)

Minimum number of passengers carried during a peak hour in each direction : 696
(Long Win)

xx xx 20xx

Urgent By Fax (2745 6779)

Our Ref : TDNR 140/190-23

Your Ref. :

Tel :

Fax :

Manager, Long Win
Bus Co. Ltd., 9 Po Lun
Street,
Lai Chi Kok, Kowloon
(Attn:)

xx xxx 20xx

Dear Sir,

Public Bus Services Ordinance (Cap. 230)
Temporary Bus Service Operated
between Disneyland Resort Pier and Airport Passenger
during No Land Link to/from Lantau Island and Chek Lap Kok
Special Service Route No. S8

In accordance with the provision of sections 13(2)(b), 13(4)(b) and 16A (1)(b), (3) and (4) of the above Ordinance, I hereby give notice that your Company is required to operate a temporary bus route No. S8 between Disneyland Resort Pier and Airport during no land link to/from Lantau Island and Chek Lap Kok.

With reference to your letter dated xx xxx 20xx, you proposed and I hereby confirm my agreement to the introduction of the above temporary bus service with immediate effect until 23:59 hrs today. Operation of this bus service shall be in accordance with the official Schedule of Service, a copy of which is attached.

Operation of this temporary bus service shall be in accordance with the official Schedule of Service, a copy of which is attached.

Please arrange adequate publicity to inform passengers of the operation of the above temporary bus service.

Yours faithfully,

(CTO (Regional)) for
Commissioner for Transport

c.c.

External

CP(CSP Traffic)
CP(DC LTDIST)
CP(DC APTDIST)
DO/Islands
AAHK (fax: 2183 2276)
MTRCL (fax: 2993 7719)
ES/TCU
CTB
NLB

Internal

PNT2
PM
CB/L
CIM1
CIM2
CN/SW
SB/L1
SN/Is1
SN/Is2
SIM3
TN/Is1
TN/Is2
TB/L1
1823
All related route files

Urgent By Fax (2605 5811)

Our Ref :
Your Ref. :
Tel :
Fax :

Operations Manager (Franchised Two)
Citybus Limited,
8 Chong Fu Road,
Chai Wan.
(Attn: Mr. Louis Kung)

xx xxx 20xx

Dear Sir,

Public Bus Services Ordinance (Cap. 230)
Temporary Bus Service Operated
between Disneyland Resort Pier and Airport
during no land link to/from Lantau Island and Chek Lap Kok
Special Service Route No. S8

In accordance with the provision of sections 13(2)(b), 13(4)(b) and 16A (1)(b), (3) and (4) of the above Ordinance, I hereby give notice that your Company is required to operate a temporary bus route No. S8 between Disneyland Resort Pier and Airport during no land link to/from Lantau Island and Chek Lap Kok.

With reference to your letter dated xx xxx 20xx, you proposed and I hereby confirm my agreement to the introduction of the above temporary bus service with immediate effect until 23:59 hrs today. Operation of this bus service shall be in accordance with the official Schedule of Service, a copy of which is attached.

Operation of this temporary bus service shall be in accordance with the official Schedule of Service, a copy of which is attached.

Please arrange adequate publicity to inform passengers of the operation of the above temporary bus service.

Yours faithfully,

(CTO (Regional)) for
Commissioner for Transport

c.c.

External

CP(CSP Traffic)
CP(DC LTDIST)
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SB/L1
SN/Is1
SN/Is2
SIM3
TN/Is1
TN/Is2
TB/L1
1823
All related route files

**Special Service Route No. S8
(Temporary Bus Service Operated
between Disneyland Resort Pier and Airport
during no land link to/from Lantau Island and Chek Lap Kok)**

I. **ROUTEING**

DISNEYLAND RESORT PIER to AIRPORT (PASSENGER TERMINAL BUILDING) : via Magic Road, Roundabout, Magic Road, Roundabout, Magic Road, Roundabout, *(Penny's Bay Highway, North Lantau Highway, Tung Chung Eastern Interchange, Yu Tung Road), #(Sunny Bay Road, Cheung Tung Road, Fu Tung Street, Tat Tung Road), Shun Tung Road, Chek Lap Kok South Road, Scenic Road, East Coast Road, Airport Road and Cheong Hong Road.

AIRPORT(GROUND TRANSPORTATION CENTRE) to DISNEYLAND RESORT PIER : via Cheong Lin Road, Airport South Interchange, Airport Road, East Coast Road, Scenic Road, Chek Lap Kok South Road, Shun Tung Road, Tat Tung Road, *(Shun Tung Road, Yu Tung Road, Tung Chung Eastern Interchange, North Lantau Highway, Penny's Bay Highway), #(Fu Tung Street, Cheung Tung Road, Sunny Bay Road), Roundabout, Magic Road, Roundabout and Magic Road.

*Journeys to/from Airport will be diverted via North Lantau Highway if situation warrant

Journeys to/from Airport will be diverted via Cheung Tung Road during closure of North Lantau Highway

II. **BUS STOPS**

Inward Journey

1. Temporary Bus Stop at the layby on Magic Road eastern bound (opposite to HK Disneyland Hotel)
2. Shun Tung Road outside Tung Chung Fire Station
3. Scenic Road outside Aviation Fuel Tank Farm
4. East Coast Road outside Cathay City (East)
5. Departure Kerb, Airport Passenger Terminal 1

Outward Journey

1. Airport (Ground Transportation Centre)
2. Scenic Road opposite to Aviation Fuel Tank Farm
3. Shun Tung Road outside Yu Tung Court
4. Temporary Bus Stop at the layby on Magic Road eastern bound (opposite to HK Disneyland Hotel)

III. TIMETABLE

To be operated on the occasion during no land link to/from Lantau Island and Chek Lap Kok upon authorization from the Transport Department.

Frequency may be adjusted according to demand.

Service may be curtailed in short notice.

IV. FARETABLE

\$20.0 per single journey

V. JOURNEY DISTANCE

18.9 km

VI. JOURNEY TIME

21 minutes

VII. VEHICLE ALLOCATION/HOURLY CAPACITY

10 air-conditioned double deckers of capacity not exceeding 131 (Long Win)

10 air-conditioned double deckers of capacity not exceeding 132 (Citybus)

Air-conditioned double deckers of capacity not exceeding 141 may be deployed for substitution

Urgent By Fax (2605 5811)

Our Ref :
Your Ref. :
Tel :
Fax :

Operations Manager (Franchised Two)
Citybus Limited,
8 Chong Fu Road,
Chai Wan.
(Attn: Mr. Louis Kung)

xx xxx 20xx

Dear Sir,

Public Bus Services Ordinance (Cap. 230)
Temporary Bus Service Operated
between Siu Sai Wan (Island Resort) and Central Ferry Piers
during no land link to/from Lantau Island and Chek Lap Kok
Special Service Route No. A12S

In accordance with the provision of sections 13(2)(b), 13(4)(b) and 16A (1)(b), (3) and (4) of the above Ordinance, I hereby give notice that your Company is required to operate a temporary bus route No. A12S between Island Resort and Central Ferry Piers during no land link to/from Lantau Island and Chek Lap Kok.

With reference to your letter dated xx xxx 20xx, you proposed and I hereby confirm my agreement to the introduction of the above temporary bus service with immediate effect until 23:59 hrs today. Operation of this bus service shall be in accordance with the official Schedule of Service, a copy of which is attached.

Operation of this temporary bus service shall be in accordance with the official Schedule of Service, a copy of which is attached.

Please arrange adequate publicity to inform passengers of the operation of the above temporary bus service.

Yours faithfully,

(CTO (Regional)) for
Commissioner for Transport

c.c.

External

CP(CSP Traffic)

CP(DC LTDIST)

CP(DC APTDIST)

DO/Islands

AAHK (fax: 2183 2276)

MTRCL (fax: 2993 7719)

ES/TCU

CTB

NLB

Internal

PU

PM

PNT2

CB/L

CB/U

CIM1

CIM2

CN/Is

CH

SB/L1

SH/E

SH/Wch

SH/C

SH/W

SN/Is1

SN/Is2

SIM3

TN/Is1

TN/Is2

TB/L1

1823

All related route files

**Special Service Route No. A12S (Temporary Bus Service Operated
between Siu Sai Wan (Island Resort) and Central Ferry Piers during no land link
to/from Lantau Island and Chek Lap Kok)**

I. ROUTEING

SIU SAI WAN (ISLAND RESORT) to CENTRAL (CENTRAL FERRY PIERS) : via Siu

Sai Wan Road, Chai Wan Road, Wan Tsui Road, Chai Wan Road, Shau Kei Wan Road, King's Road, Kornhill Road, King's Road, Tung Lo Wan Road, Moreton Terrace, Gloucester Road flyover, Gloucester Road, Gloucester Road service road, Gloucester Road, Harcourt Road, Connaught Road Central, Connaught Place, Man Yiu Street and Man Kwong Street.

CENTRAL (CENTRAL FERRY PIERS) to SIU SAI WAN (ISLAND RESORT) : via Man

Kwong Street, roundabout, Man Kwong Street, Man Yiu Street, Connaught Place, Connaught Road Central, Harcourt Road, Gloucester Road, Victoria Park Road, flyover, Gloucester Road, Causeway Road, Hing Fat Street, Gordon Road, Electric Road, Java Road, Man Hong Street, King's Road, Shau Kei Wan Road, Chai Wan Road, Wan Tsui Road, Chai Wan Road and Siu Sai Wan Road.

II. TIMETABLE

To be operated on the occasion during no land link to/from Lantau Island and Chek Lap Kok upon authorization from the Transport Department.

Frequency may be adjusted according to demand.

Service may be curtailed in short notice.

III. FARETABLE

\$26.0 per single journey

IV. JOURNEY DISTANCE

15km

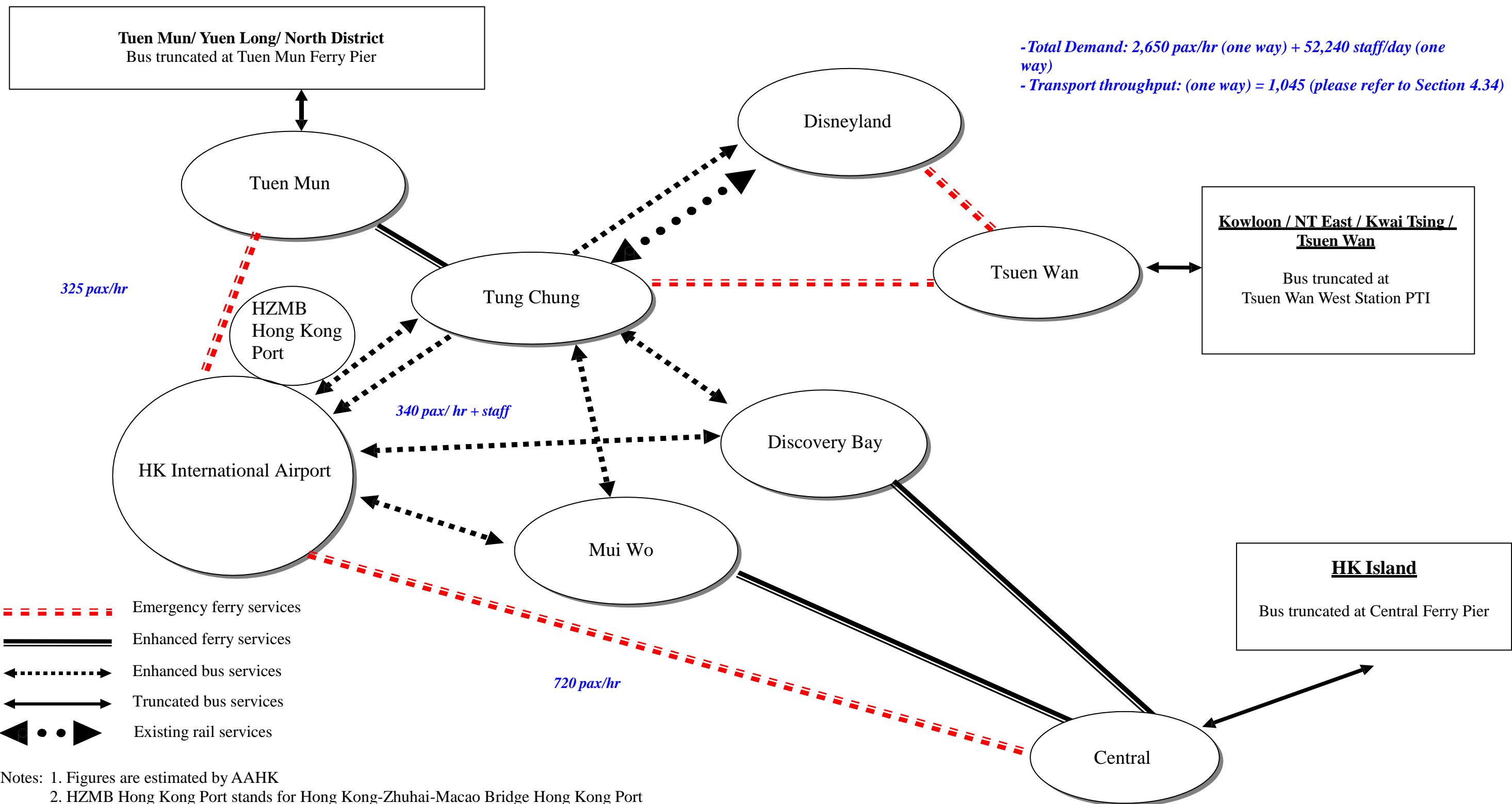
V. JOURNEY TIME

40 minutes

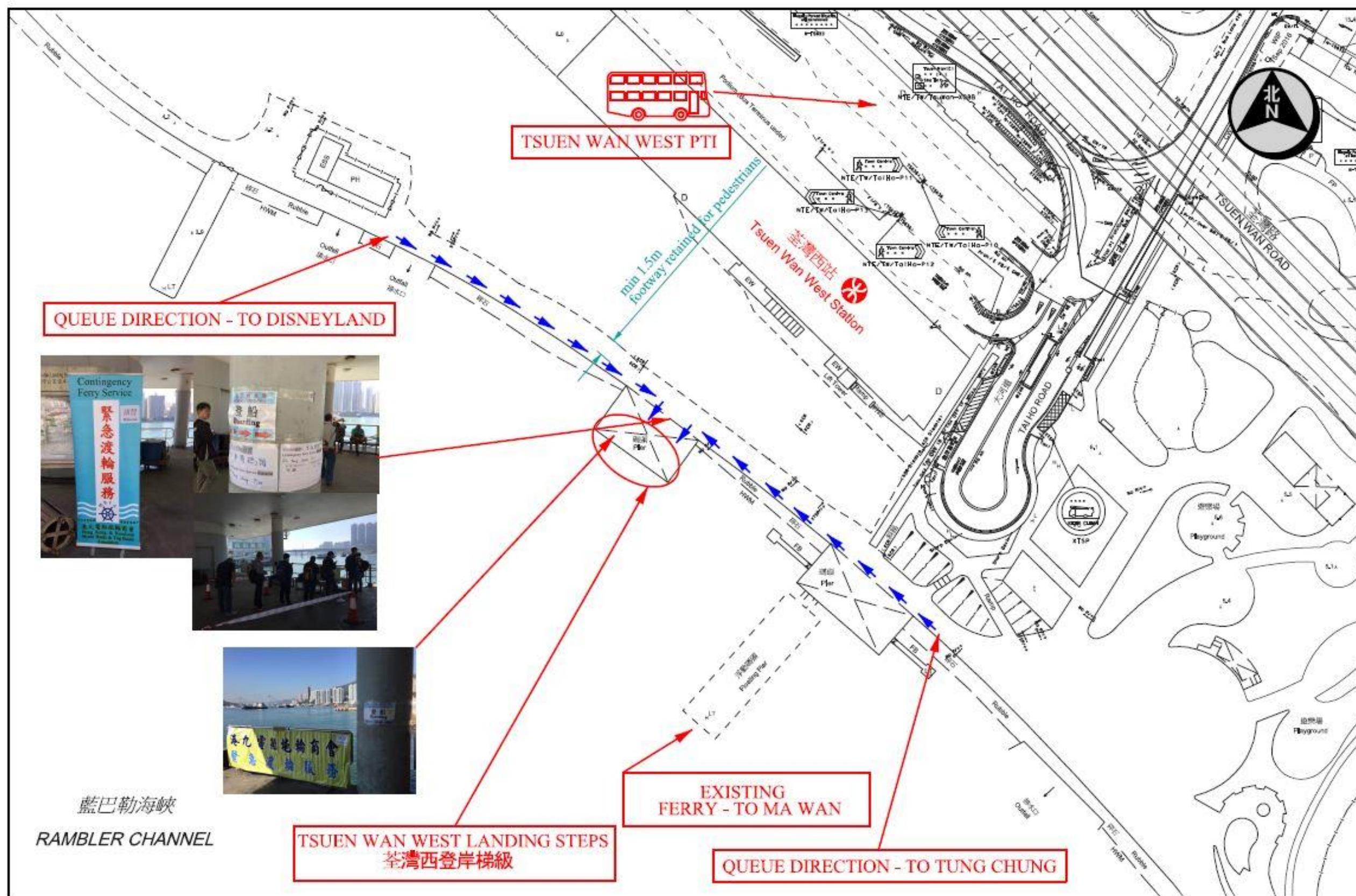
VI. VEHICLE ALLOCATION/HOURLY CAPACITY

Subject to available resources.

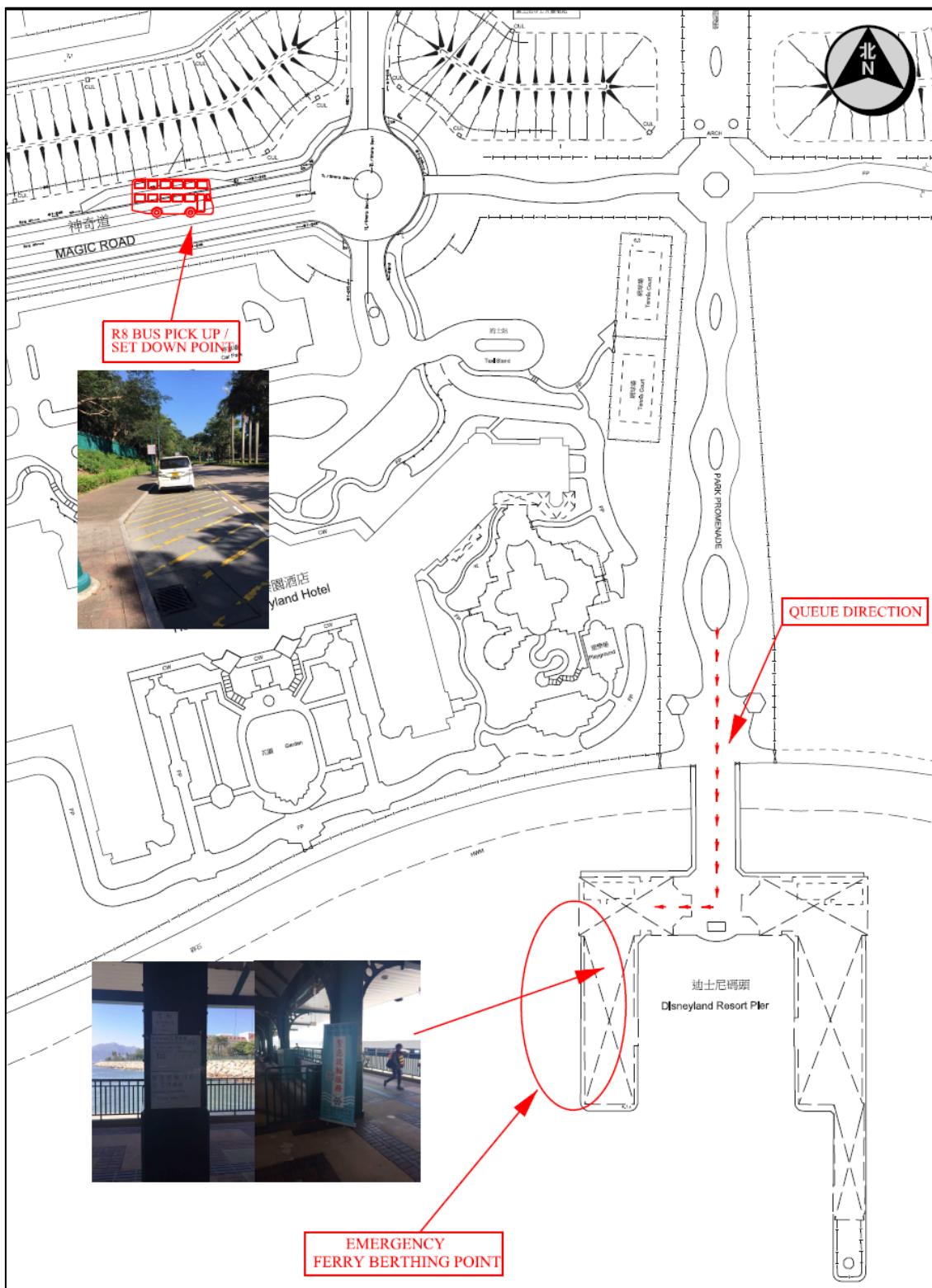
Contingency Measures and Critical Transport Capacities under NLL Situation



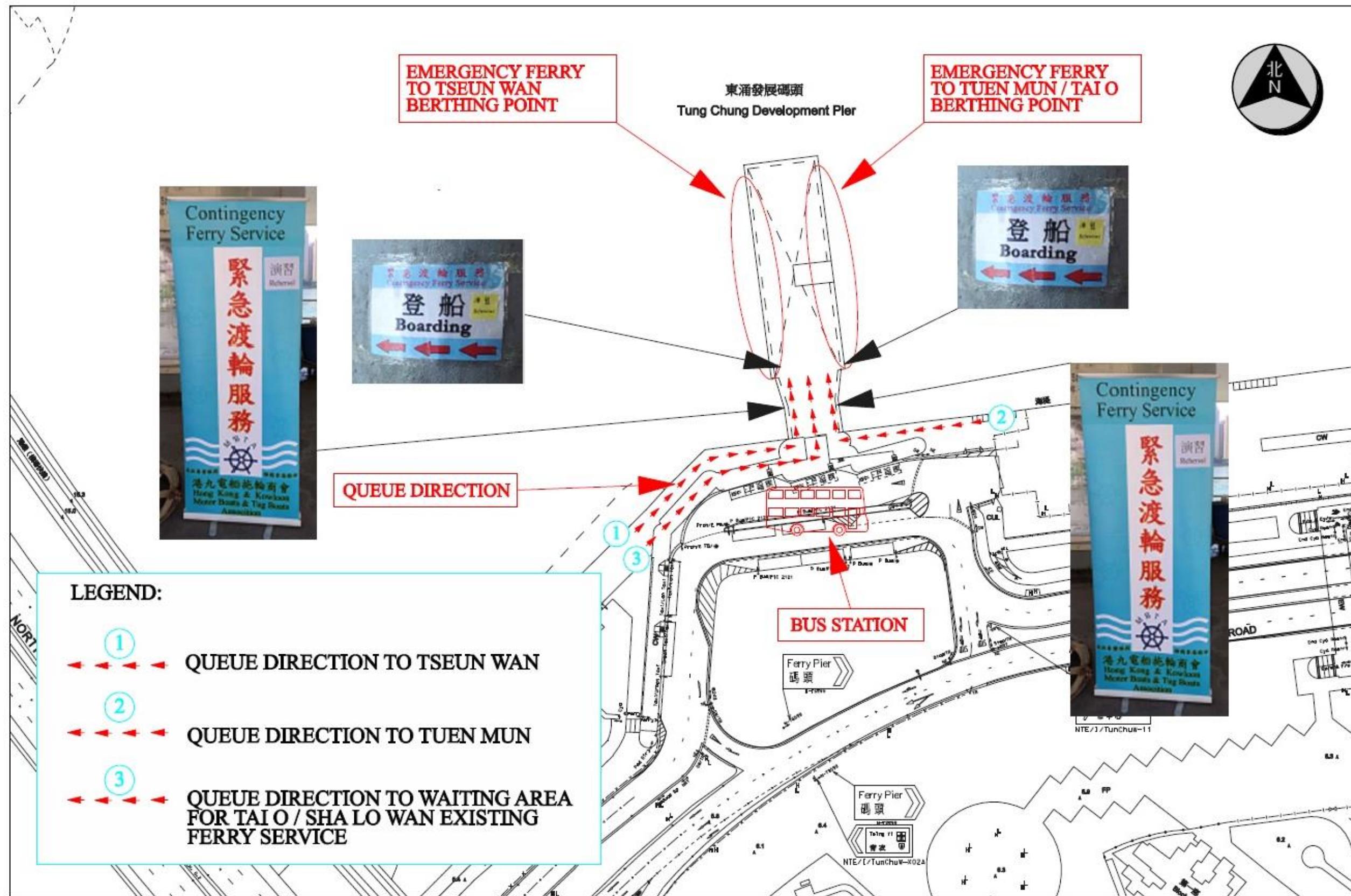
Tsuen Wan Public Landing Steps Pier queuing & signage locations



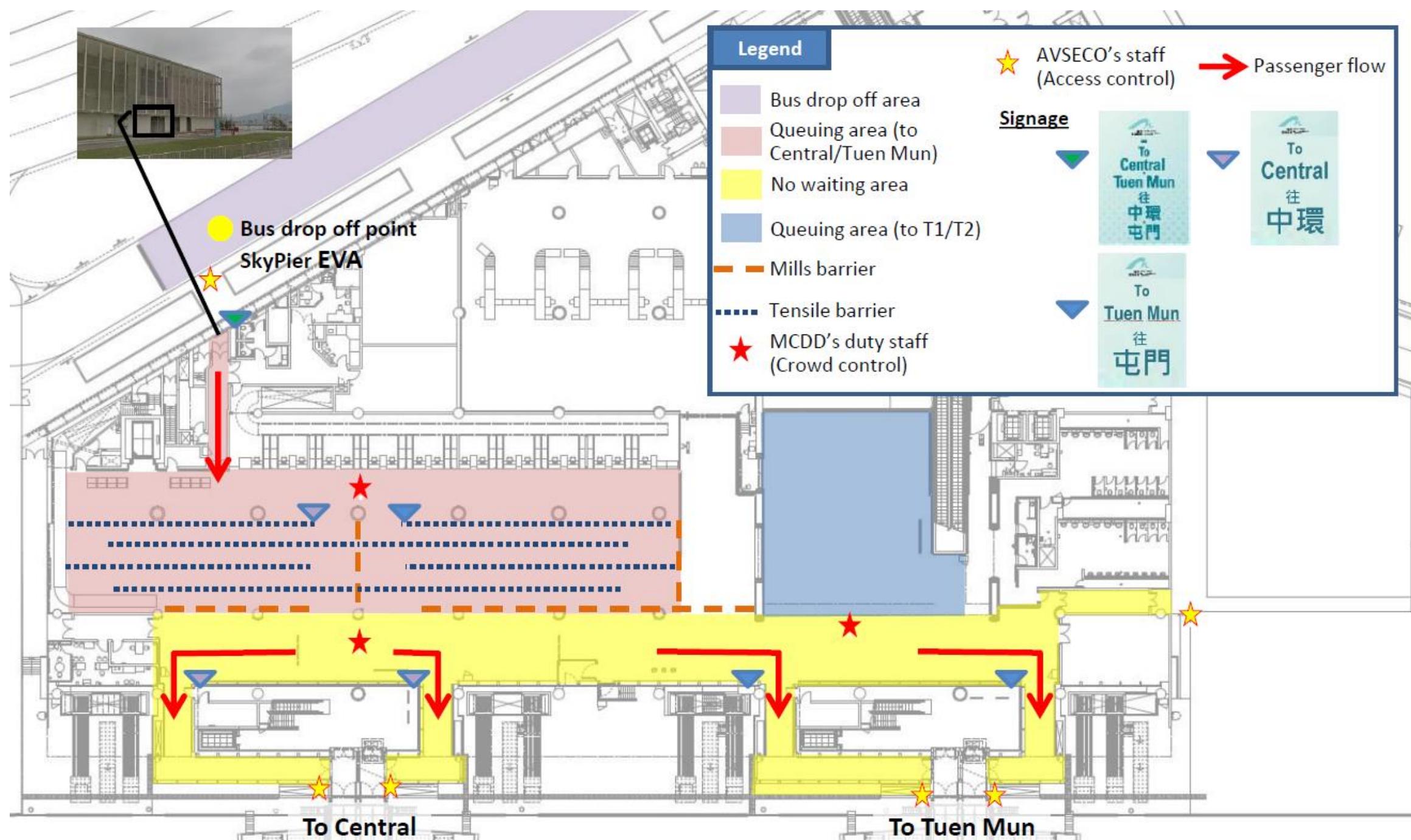
Disneyland Resort Pier queuing & signage locations



Tung Chung Development Pier queuing & signage locations



SkyPier Operation Flow and Signage Plan (To city)



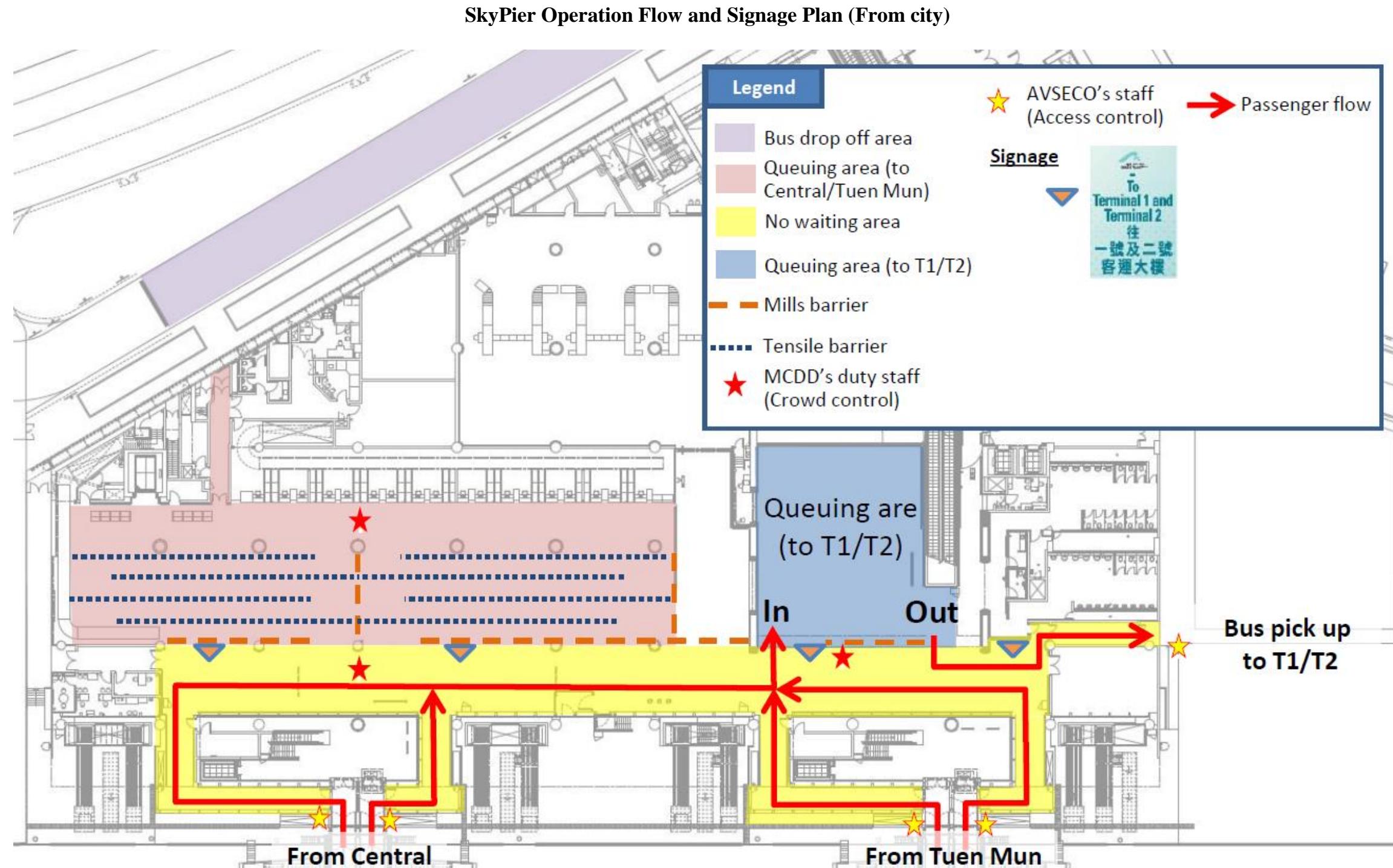
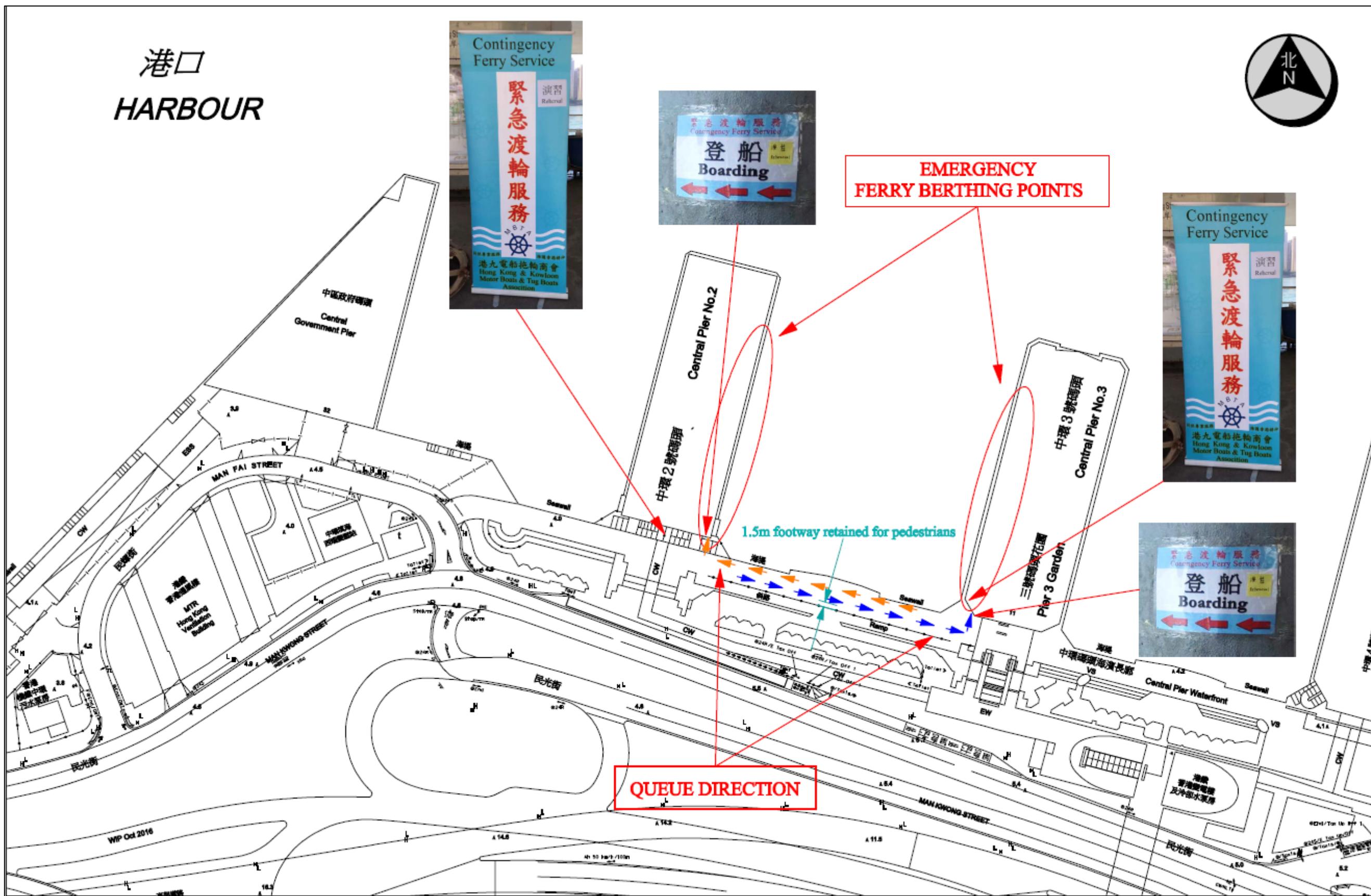
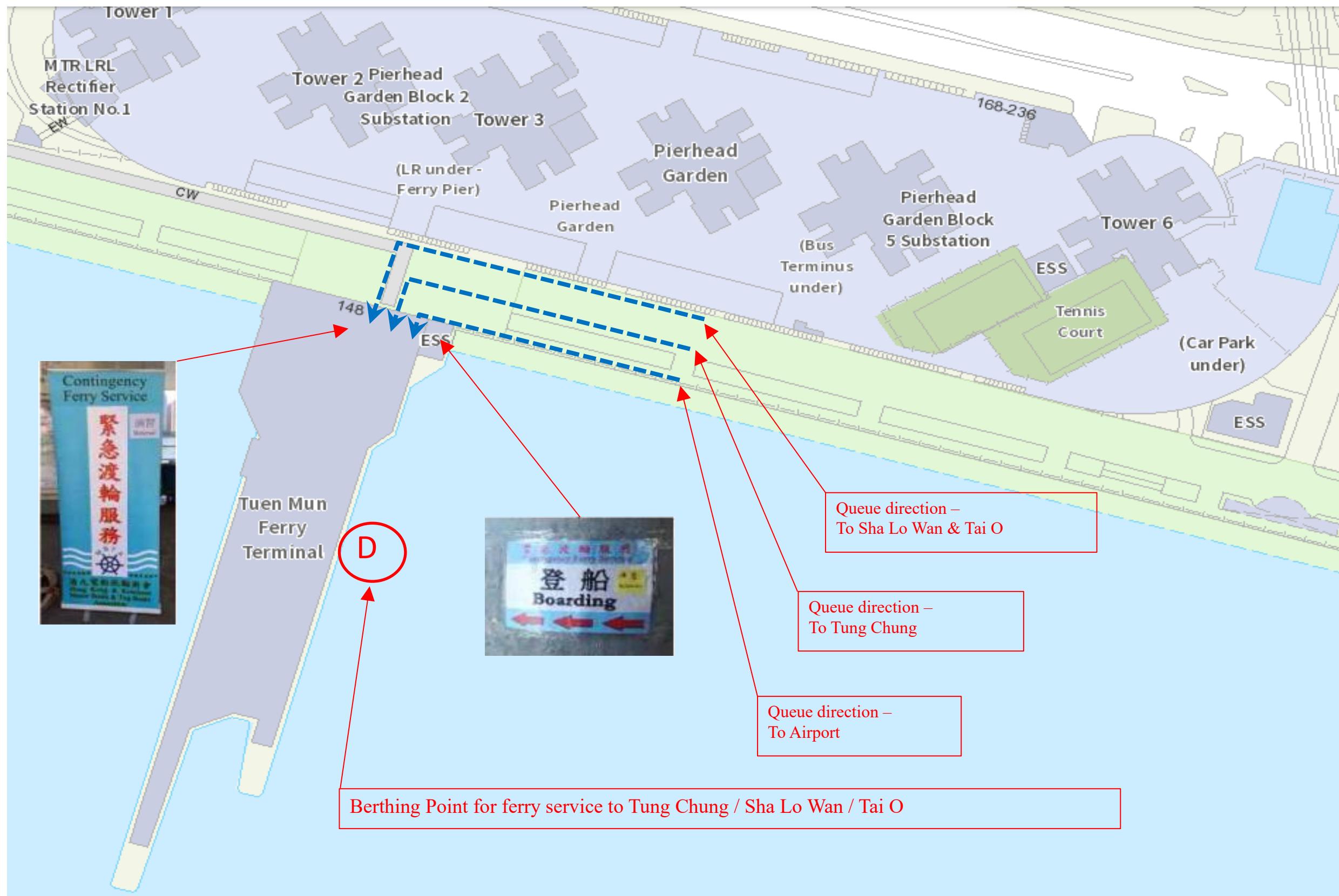


Diagram 5

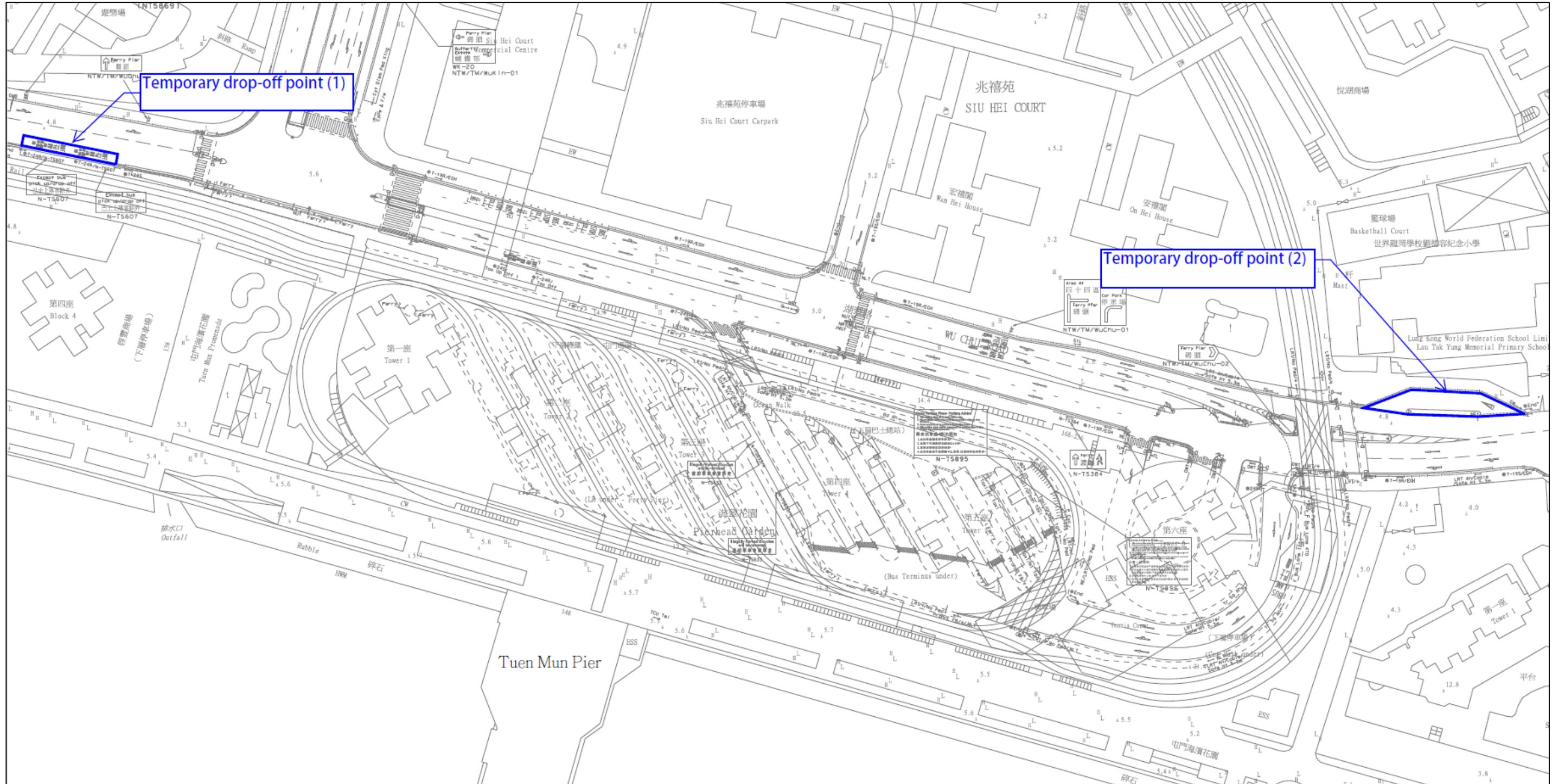
Central Piers queuing & signage locations



Tuen Mun Ferry Pier queuing & signage locations



Temporary drop-off points for private vehicles along Wu Chui Road



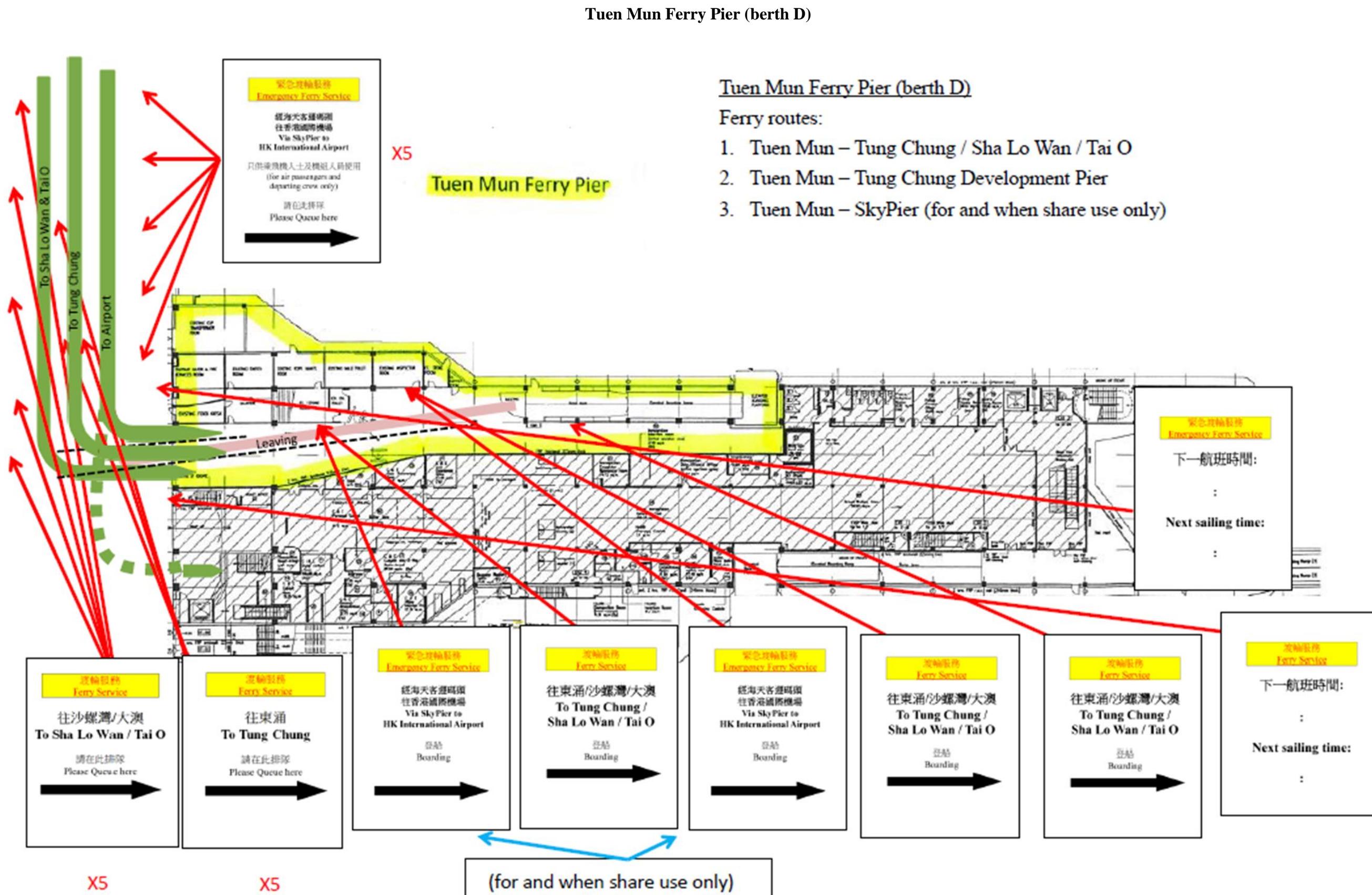
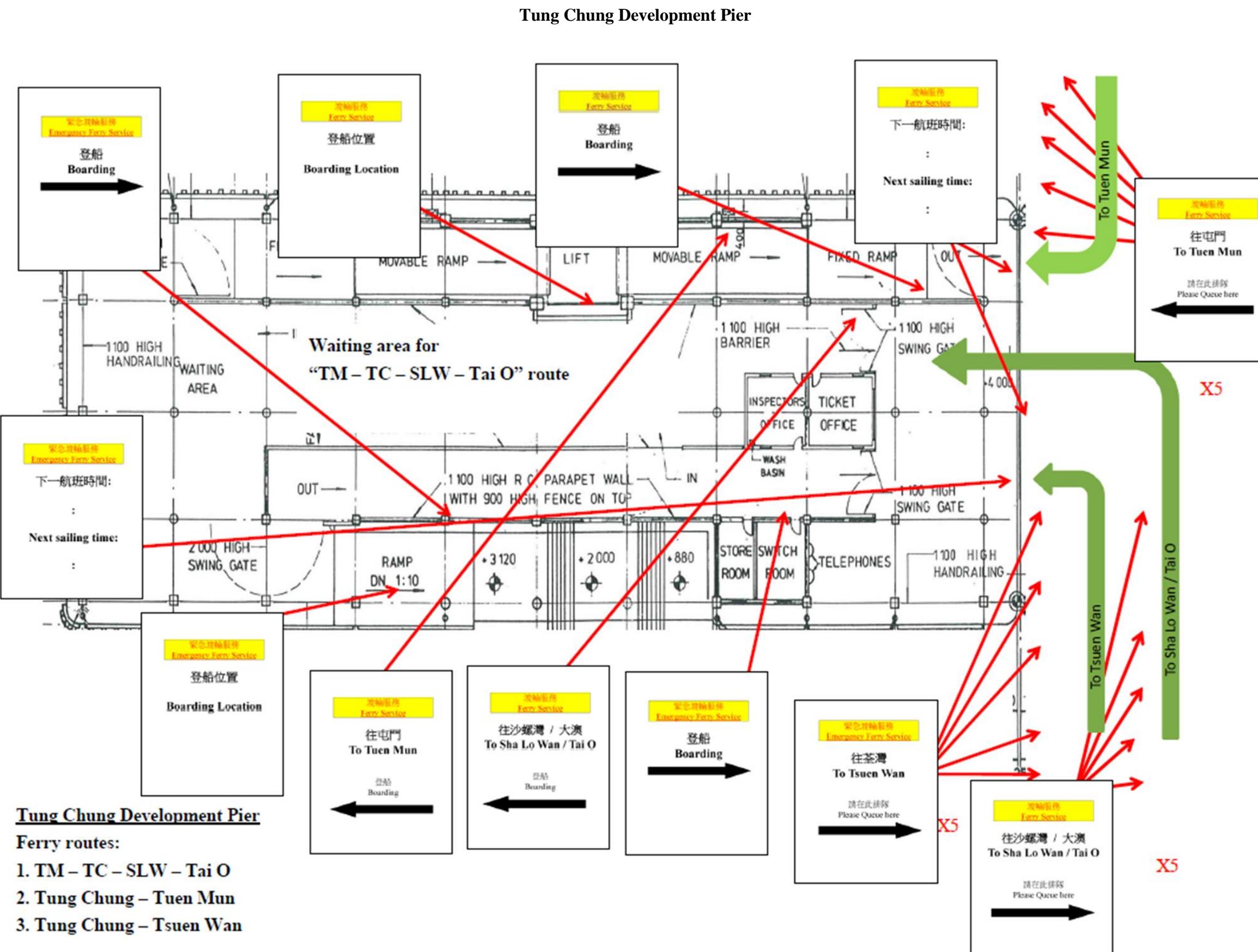
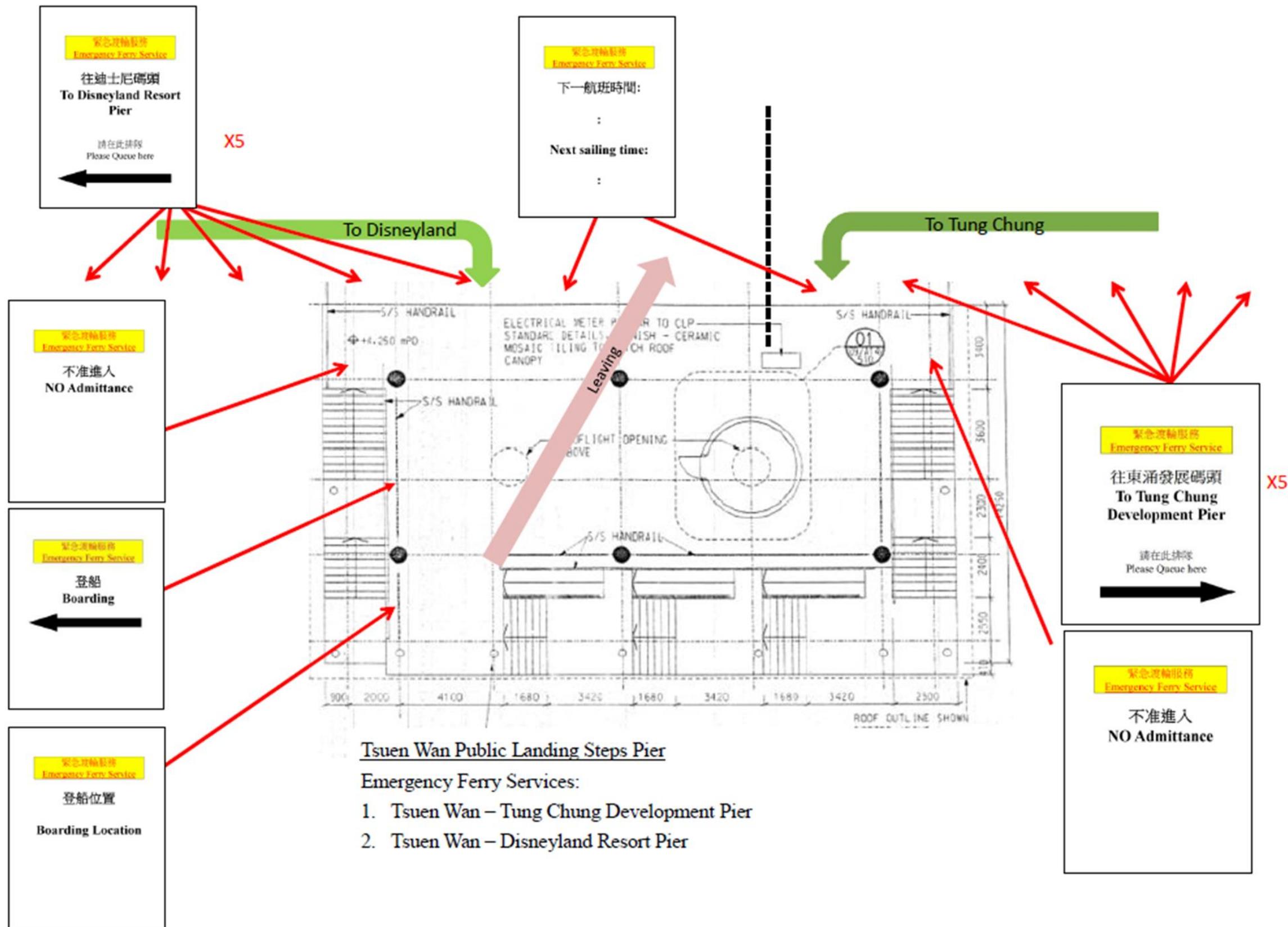
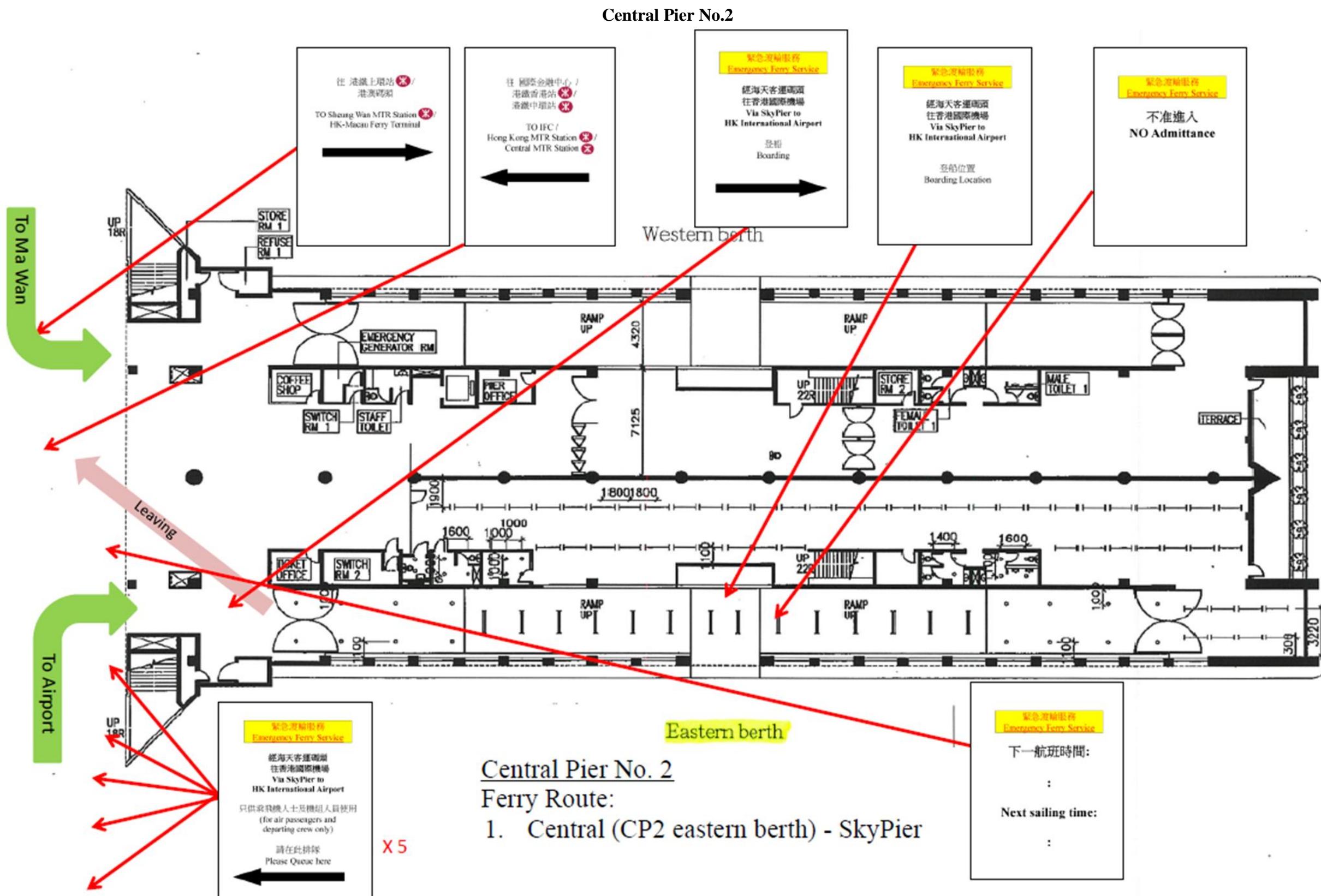
Details of the queuing and signage arrangements

Diagram 7(b)



Tsuen Wan Public Landing Steps Pier



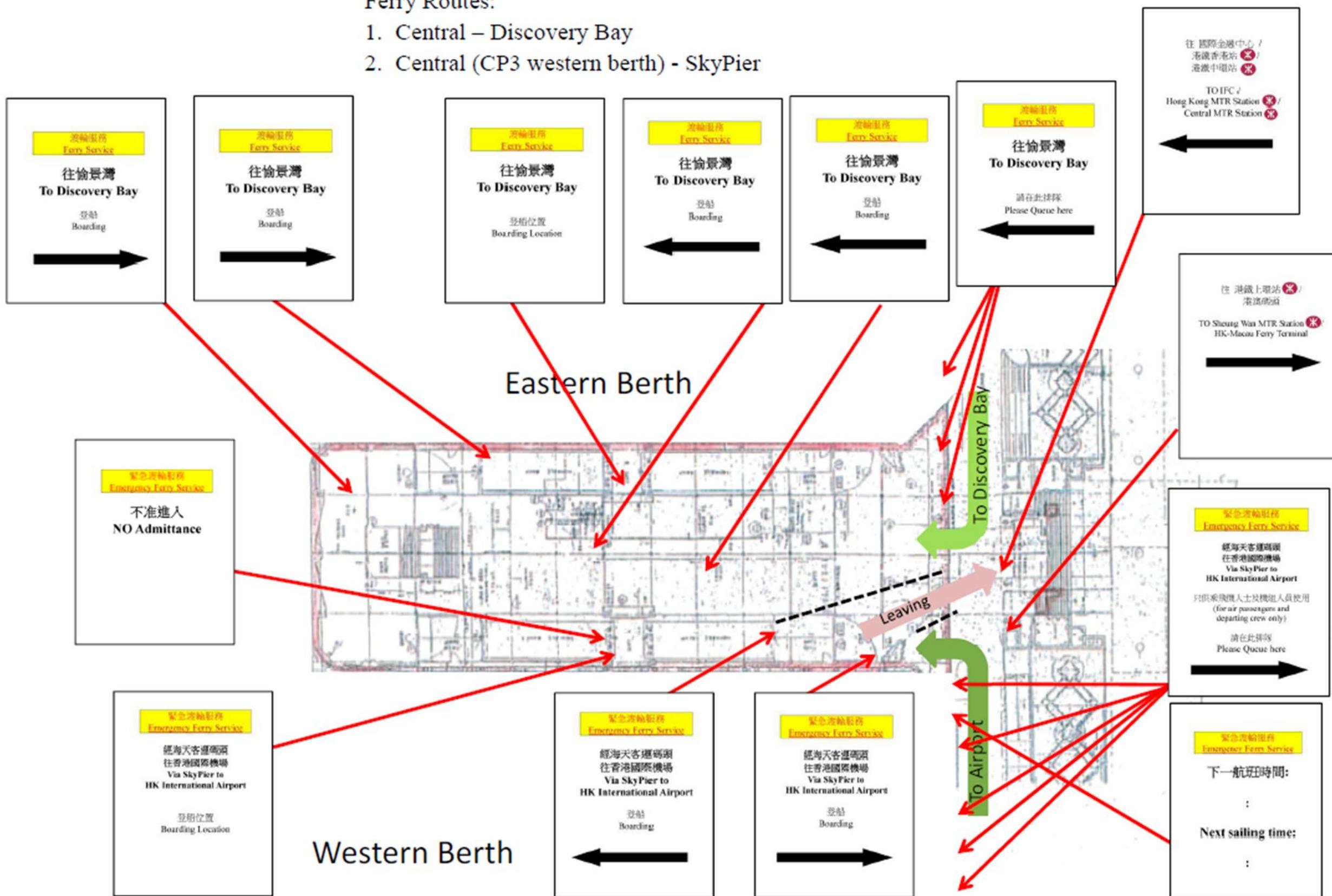


Central Pier No.3

Central Pier No.3

Ferry Routes:

1. Central – Discovery Bay
2. Central (CP3 western berth) - SkyPier



Business Continuity Manual

Business Continuity Plan: D2

Traffic Control & Surveillance System, Car Park Vehicle Access Control System

		Signature	Revision	Effective Date
Updated By	AGM, Landside Services LD	 Chris Chan	32	Jun 2023
	AGM, Landside Infrastructure Management LD	 Benny Leung		
Reviewed By	Assistant General Manager BCP, SSBC	 Emily Chu		
Approved By	General Manager SSBC	 David Jea		

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BCP – D2. Traffic Control & Surveillance System, Car Park Vehicle Access Control System Table of Contents

<u>ITEM</u>	<u>SUBJECT MATTER</u>	
A	System Description	D2.5
B	Contingency Procedures for TCSS and CPVACS	D2.6

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A. System Description

1.0 Introduction

- 1.1 Traffic Control and Surveillance System (TCSS) consists of the following sub-systems,
- i Incident Detection and Diversion System (IDDS)
 - ii Inductive Loop Vehicle Detection System (VDS)
 - iii Lane Usage Sign (LUS)
 - iv Advisory Speed Sign (ASS)
 - v Variable Message Sign (VMS)
 - vi Emergency Telephone System (EMT)
 - vii Departure Guidance Dynamic Signage System (DGDSS)
 - viii Primary Access Road Dynamic Sign (PARDS)
 - ix Departure Kerb Dynamic Sign (DKDS)
 - x Pedestrian Crossing System (PSCS)
 - xi Car Park Information Display System (CIDS)
- 1.2 Among all sub-systems, IDDS system is provided with dual redundant servers and network switches, while the rest of the above-mentioned sub-systems have no redundant backup.
- 1.3 The Car Park Vehicle Access Control System (CPVACS) maintains the automatic car park services and can be divided into 4 different sections, i.e. PTB 1, PTB 2, General and Others, while each section independently maintains numbers of car park services with detailed location demarcation as follows:

Item	Section	Subsystems
1	PTB 1	Car Park 1
		SHROFF office at Car Park 1
		Terminal 1 Loading Dock
2	PTB 2	Car Park 4
3	General	Limousine Lounge Pickup Area
4	Others	HKIAT Car park
		HKIAT Loading Dock
		HKIA Commercial Building Car Park
		HKIA Commercial Building Loading Dock

Each section of Car Park System includes 1 central server, local industrial PC controllers at local kiosks or shroff offices and field devices (such as CCTV and barrier gates). Car Park Vehicle Access Control System has no redundant backup.

B. Contingency Procedures for TCSS and CPVACS

1.0 Criteria for activating contingency plan

- 1.1 In case of system failure to both primary and secondary servers and network switches of TCSS IDDS.
- 1.2 In case of system failure to TCSS sub-systems except IDDS.
- 1.3 In case of system failure to field devices, local PC controller and servers of CPVACS.
- 1.4 Car park barrier gate(s) fail(s) to automatically response to user operation properly.

2.0 Services and manpower involved

- 2.1 TCSS and CPVACS electronic engineers and technicians
- 2.2 AA FRT
- 2.3 AA System Owner
- 2.4 CPVACS Operators

3.0 Contingency Procedures

3.1 When irregularities are detected according to the forehead criteria

- i. Any person affected by TCSS and CPVACS service interruption should immediately report the fault to IAC-LD and list out the affected area(s). Then, IAC-LD should report the fault to the System Owner and FRT.
- ii. If FRT identifies the system failures, they should report to the System Owner and IAC-LD.

3.2 Follow up procedure for recovery estimation

- i. FRT shall identify and record the locations of system failure and possible affected area(s).
- ii. FRT should notify the relevant TSS maintenance contractor and diagnose the reason of the system failure. In addition, FRT and TSS maintenance contractor of TCSS and/or CPVACS shall estimate the recovery time.

3.3 When TCSS and CPVACS can be resumed within acceptable time

- i. FRT shall report to the System Owner and IAC-LD that the TCSS / CPMS can be resumed within acceptable time.
- ii. FRT shall report to the System Owner and IAC-LD again after resumption of affected TCSS and CPVACS are resumed.

- 3.4 When TCSS and CPVACS cannot be resumed within acceptable time
- i. FRT shall report to the System Owner and IAC-LD of the situation and the estimated recovery time.
 - ii. TSS, maintenance contractor and FRT shall seek alternative methods to provide the TCSS and CPVACS services as far as possible. Urgent repair on TCSS and CPVACS shall also be organized concurrently.
 - iii. For TCSS interruption, IAC-LD and System Owner shall notify and coordinate with the relevant Government Authorities for manual traffic control.
 - iv. For CPVACS interruption, IAC-LD and System Owner shall notify car park management operators to maintain car park services on site with local manual operation on entry and exit of vehicles. Car park management operators shall record car park user's information for later computer data re-entry upon system restoration.
 - v. FRT and TSS shall closely communicate with the System Owner and IAC-LD, and update the latest situation until TCSS and/or CPVACS resume.

4.0 Interface with other operational organizations during contingency

- 4.1 System Owner / LD
- 4.2 IAC
- 4.3 TSS

5.0 Data preservation procedures

TCSS and CPVACS data is archived in TCSS servers, TCSS sub-system local devices and CPVACS servers. FRT and Maintenance Contractor shall retrieve the relevant logs and record the fault handling actions to maintenance team for the detailed investigation and follow up.

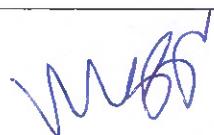
End of BCP – D2

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Business Continuity Manual

Business Continuity Plan: D3

Contingency Staff Transport

		Signature	Revision	Effective Date
Updated By	Senior Manager, Administration	 Maggie Chan		
Reviewed By	Senior Manager BCP, SSBC	 Emily Chu	30	Jul 2022
Approved By	General Manager SSBC	 David Jea		

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BCP – D3 Contingency Staff Transport Table of Contents

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B.	Mobilization	D3.5
C.	Routing	D3.6
D.	Signage	D3.6
E.	Ad hoc Contingency Transport at HKIA	D3.6
F.	Contacts	D3.7
G.	Map of the Designated Bus Stops	D3.7 – 3.13
H.	Contingency Bus Services Details	D3.14 – 3.16

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A **Purpose**

Bus services run by the appointed Contractor will be provided as contingency staff transport (CST) for picking up shift staff and Passenger Care Team (PCT) when the MTR's Airport Express Line (AEL) and Public Buses Service to/from airport are not available.

This circular describes the procedure of mobilising the service and provides the routings and stops as set out in Paragraph C below.

B **Mobilisation**

1. When the AEL services and Public Buses Service to/from airport are not available, the Airport Duty Manager of IAC will determine the mobilization of CST services to meet the shift change of duty staff and/or PCT members at least two hours before the CST services is required.
2. Upon instruction given by Airport Duty Manager, the Contractor's buses will arrive at the first stop of each route at time as set in Paragraph H.
3. The Airport Duty Manager will also determine if outbound trips are required for the off-duty staff (from T1 Coach Station to outstations) after the buses transferred the inbound on-duty staff to the airport and will advise the Contractor two hour before the shift-off time. In case that this is necessary, the buses will depart the T1 Coach Station at time as set in Paragraph H.
4. When CST services is required for PCT, the Airport Duty Manager will inform the PCT Shift Leader of the inbound and outbound timetable for cascading down to the PCT members.
5. The buses will run provided always that weather conditions permit and the Tsing Ma Bridge remains open. In the event that weather conditions deteriorate to such an extent that road conditions are hazardous and the safety of passengers is endangered, the bus services or routing may have to be altered, suspended or stopped. The Airport Duty Manager will be kept informed of such situation by the Contractor.

C **Routings**

1. 45-seater buses will be allocated to the following routes.

Inbound

- HK1: HK AEL Station (Map A1 refers) → Mei Foo MTR station (Map A2) → Tsing Yi AEL Station (Map A3 refers) → Tung Chung MTR Station (Map A4 refers) → T1
- TY1: Tuen Mun Times Square (Map B1 refers) → Tin Shui Wai MTR Station (Map B2 refers) → Long Ming Street (Map B3 refers) → T1
- TY2: Sheung Shui MTR Station (Map C1 refers) → Fanling MTR Station (Map C2 refers) → Tai Po Market Station (Map C3 refers) → T1
- TY3: Sunshine City (Map D1 refers) → Shatin Plaza (Map D2 refers) → Tsuen Wan MTR Station (Map D3 refers) → T1

Outbound

- HK2: T1 → Tung Chung MTR Station (Map A4 refers) → Tsing Yi AEL Station (Map A3 refers) → Mei Foo MTR station (Map A2) → HK AEL Station (Map A1 refers)
- TY4: T1 → Long Ming Street (Map B3 refers) → Tin Shui Wai MTR Station (Map B2 refers) → Tuen Mun Times Square (Map B1 refers)
- TY5: T1 → Tai Po Market Station (Map C3 refers) → Fanling MTR Station (Map C2 refers) → Sheung Shui MTR Station (Map C1 refers)
- TY6: T1 → Tsuen Wan MTR Station (Map D3 refers) → Shatin Plaza (Map D2 refers) → Sunshine City (Map D1 refers)

D **Signage**

A sign "Airport Authority (機管局)" with the route number will be displayed on the windscreens of all buses and a Staff ID Card should be carried for proof of identity.

E **Ad hoc Contingency Transport at HKIA**

Administration drivers and vehicle fleet will support the ad hoc transport requirement at airport as necessary. As far as possible, request should be addressed to the Administration Officer- Transport Services with 3 hours advance notice.

F Contacts

Upon the activation of Airport Emergency Centre (AEC), the AEC Support Team (2182-0088 / aec@hkairport.com) shall assist Airport Duty Manager (2183-2939) at the IAC to coordinate and disseminate information to the ACC (2910-1108), IAC - TOD (2181-8110), IAC – LD (2181-8118) FRTMO (2183-6888) and the PCT Shift Leader. If required, duty staff can contact the appropriate control centre and PCT members to contact their respective Unit Leaders.

G. Map of the designated bus stops















H Contingency Bus services details

Route	Pick up / Drop off point	Map	Shift Duty Staff		Passenger Care Team (“PCT”)	
			Pick Up Time	No. of Coach Required	Pick Up Time	No. of Coach Required
Inbound						
HK1	HK AEL Station Harbour View Street Lay-by 香港機鐵站港景街避車處	A1	06:30 / 18:30	2	hh:mm	1
	Mei Foo MTR Station EXIT A (pick up at Red mini-bus stop at PTI) 美孚港鐵站 A 出口	A2	06:45 / 18:45		hh:mm+15min	
	Tsing Yi AEL Station Ground Level EXIT C 青衣機鐵站 C 出口地面	A3	06:52 / 18:52		hh:mm+22min	
	Tung Chung MTR Station EXIT A, Urban Taxi Station, Coach Pickup Area 東涌地鐵站 A 出口市區的士站	A4	07:12 / 19:12		hh:mm+42min	
	Arriving at T1 coach station		07:20 / 19:20		hh:mm+50min	
TY1	Tuen Mun Times Square, Tuen Hop Street 屯門時代廣場屯合街	B1	06:30 / 18:30	2	hh:mm	1
	Tin Shui Wai MTR Station EXIT D 天水圍港鐵站 D 出口	B2	06:40 / 18:40		hh:mm+10min	
	Long Ming Street (Opposite side of Yuen Long MTR Station EXIT H) 元朗 朗明街 (元朗地鐵站 H 出口對面)	B3	06:50 / 18:50		hh:mm+20min	
	Arriving at T1 coach station		07:25 / 19:25		hh:mm+55min	
	Sheung Shi MTR Station EXIT B 上水港鐵站 B 出口	C1	06:30 / 18:30		hh:mm	
TY2	Fanling MTR Station EXIT A2 粉嶺港鐵站 A3 出口	C2	06:35 / 18:35	2	hh:mm+5min	1
	Tai Po Market Station EXIT A1 Lay-by 大埔墟火車站近 A1 出口避車處	C3	06:50 / 18:50		hh:mm+20min	
	Arriving at T1 coach station		07:40 / 19:40		hh:mm+70min	
	Sunshine City, On Luk Street. Below the footbridge 新港城鞍祿街行人天橋底	D1	06:30 / 18:50		hh:mm	
TY3	Shatin Plaza Citibank 沙田廣場花旗銀行	D2	06:45 / 18:45	2	hh:mm+15min	1
	Tsuen Wan MTR Station EXIT B2, Tsuen Wan Multi-Storey Car Park 荃灣港鐵站 B2 出口, 荃灣多層停車場	D3	07:00 / 19:00		hh:mm+30min	
	Arriving at T1 coach station		07:35 / 19:35		hh:mm+65min	

Route	Pick up / Drop off point	Map	Shift Duty Staff		Passenger Care Team (“PCT”)	
			Pick Up Time	No. of Coach Required	*Pick Up Time	No. of Coach Required
Outbound						
HK2	Depart at T1 coach station		08:30 / 20:30	2	hh:mm	1
	Tung Chung MTR Station EXIT A, Urban Taxi Station, Coach Pickup Area 東涌地鐵站 A 出口市區的士站	A4	08:38 / 20:38		hh:mm+8min	
	Tsing Yi AEL Station Ground Level EXIT C 青衣機鐵站 C 出口地面	A3	09:58 / 20:58		hh:mm+28min	
	Mei Foo MTR Station EXIT A (pick up at Red mini-bus stop at PTI) 美孚港鐵站 A 出口	A2	09:05 / 21:05		hh:mm+35min	
	HK AEL Station Harbour View Street Lay-by 香港機鐵站港景街避車處	A1	09:20 / 21:20		hh:mm+50min	
TY4	Depart at T1 coach station		08:30 / 20:30	2	hh:mm	1
	Long Ming Street (Opposite side of Yuen Long MTR Station EXIT H) 元朗 朗明街 (元朗地鐵站 H 出口對面)	B3	09:05 / 21:05		hh:mm+35min	
	Tin Shui Wai MTR Station EXIT D 天水圍港鐵站 D 出口	B2	09:15 / 21:15		hh:mm+45min	
	Tuen Mun Times Square, Tuen Hop Street 屯門時代廣場屯合街	B1	09:25 / 21:25		hh:mm+55min	
TY5	Depart at T1 coach station		08:30 / 20:30	2	hh:mm	1
	Tai Po Market Station EXIT A1 Lay-by 大埔墟火車站近 A1 出口避車處	C3	09:20 / 21:20		hh:mm+50min	
	Fanling MTR Station EXIT A2 粉嶺港鐵站 A3 出口	C2	09:35 / 21:35		hh:mm+65min	
	Sheung Shi MTR Station EXIT B 上水港鐵站 B 出口	C1	09:40 / 21:40		hh:mm+70min	
TY6	Depart at T1 coach station		08:30 / 20:30	2	hh:mm	1
	Tsuen Wan MTR Station EXIT B2, Tsuen Wan Multi-Storey Car Park 荃灣港鐵站 B2 出口, 荃灣多層停車場	D3	09:05 / 21:05		hh:mm+35min	
	Shatin Plaza Citibank 沙田廣場花旗銀行	D2	09:20 / 21:20		hh:mm+50min	
	Sunshine City, On Luk Street. Below the footbridge 新港城鞍祿街行人天橋底	D1	09:35 / 21:35		hh:mm+65min	

Note:

Route	No. of buses per route	
	for Shift Duty	for PCT
Inbound		
HK1	2	1
TY1	2	1
TY2	2	1
TY3	2	1
Outbound		
HK2	2	1
TY4	2	1
TY5	2	1
TY6	2	1

End of BCP – D3

Business Continuity Manual

Business Continuity Plan: E1

Emergency Power System

		Signature	Revision	Effective Date
Updated By	Senior Manager E&E, TSI	 James Ng		
Reviewed By	Assistant General Manager BCP, SSBC	 Emily Chu	34	Nov 2023
Approved By	General Manager SSBC	 David Jea		

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BCP – E1. Emergency Power Systems Table of Contents

<u>ITEM</u>	<u>SUBJECT MATTER</u>	<u>PAGE</u>
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A	System Description	E1.5
B	Physical System Risk	E1.7
C	Contingency Procedures for Power Distribution System	E1.7
D	Contingency Procedures during the Tropical Cyclones	E1.10
E	Cyber Security	E1.10
F	Interface with Other Operational Organizations during Contingency	E1.11
Part II – Emergency Power Systems (Airfield)		
A	System Description	E1.12
B	Contingency Procedures for Emergency Power Supply	E1.14
C	Cyber Security	E1.15

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Part I - Emergency Power Systems (Terminal)

A. System Description

1.0 Emergency Generator

- 1.1 There are six sets of 11kV 5MVA emergency generators located at Generator House 1 (GH1). In case of CLP supply failure at any of 11kV substations at T1, these emergency generators will automatically start up via Generator Interfacing Panel (GIP) from Intelligent Protection, Automation, Control and Supervisory (IPACS) / High Voltage Supervisory Control and Data Acquisition (HVSCADA) system to provide backup power supply to essential services and other airport critical systems in T1.
- 1.2 A remote start push button of emergency generator was installed at PA, PB, PC & PH switch station in T1. In case of automatic generator start signal in Intelligent Protection, Automation, Control and Supervisory (IPACS) / High Voltage Supervisory Control and Data Acquisition (HVSCADA) system is mal-function, the remote start push button should be pressed manually to operate the emergency generator.
- 1.3 The 4MVA Battery Energy Storage System (BESS) located at GH1 will automatically start up and synchronize with the emergency generators as backup power supply to essential services and other airport critical systems in T1.
- 1.4 The emergency power system of APM Depot, T2 APM, T1 Annex, Ground Transportation Lounge (GTL), Ground Transportation Centre (GTC), SkyPier Terminal, T1 Satellite Concourse, T1 Midfield Concourse and Sky Bridge consists of LV Generators and is used to backup main power supply. When the main power is lost, the Emergency Power System would automatically cut-in within 15 seconds and provide power supply to those equipment classified as “essential”.
- 1.5 In normal operation, main power feeder supplies power to both essential and non-essential loads while the local LV emergency generators are on standby status. When city main power is unstable or loss, the generators would automatically startup and changeover to supply power to the essential loads within 15 seconds, while non-essential loads would be shed from power supply. When city main power recovers, the system would automatically resume to normal operation status, i.e. main power would be changeover and restore all essential and non-essential loads, generator would automatically turn off.

1.6 Generator Schedule

Station	Rating	Room No.
Ground Transportation Centre (GTC)	1713 KVA	4G041
CP4	85 KVA	Generator room
Limousine Lounge	300 KVA	3L017
HKIAT	1500 KVA	Zone 98 3NT020
HKIAT 2	1 no. 480kVA 1 no. 2500kVA	G/F FS Genset Room G/F Non FS Genset Room
HKIA Commercial Building	1500 KVA	3ST020
GH1 - 6 x HV gensets - Battery Energy Storage System	6 nos. 5000 KVA 1 no. 4000 kVA	1L012
SkyPier Terminal	2nos. 1600 KVA 1no. 1250 KVA 3 nos. 1675 KVA	4P005 Generator room Generator room
T1 Satellite Concourse	1500 KVA 1100 KVA	8NC104 8NC103
T1 Midfield Concourse	1 no. 2500kVA 1 no. 2000kVA 2 nos. 1500kVA 1 no. 1250kVA 2 nos. 1000kVA 1 nos. 200kVA	T1 Midfield Generator Rooms

Sky Bridge	1 no. 800kVA 1 no. 1362kVA	6SB219 5SB224
Chiller Building	1 nos. 2270kVA 3 nos. 1710kVA	Generator Room
T1 Annex	2 nos. 2250kVA 1250kVA	3CP4008 3A017
Ground Transportation Lounge (GTL)	37kVA	Generator Room
South Annex Building	2000kVA 3 nos. 2250kVA 825kVA	0SA005 0SA001, 032, 092 0SA035
APM Depot	2 nos. 2015kVA 2500kVA	3ND003 3ND012

B. Physical System Risk

Risk	Description	Mitigation
Trespassers	Unauthorized operation of the equipment	Master Key System had been applied for the access control of the GH 1, all LV switch rooms and LV generator rooms.
Fire	Damage of equipment due to fire	Protected by smoke detectors / Pre-action system

C. Contingency Planning

1.0 Criteria for activating contingency plan

- 1.1 In case of power failure, the related generator(s) will be automatically activated.
- 1.2 The 11KV system changeover and the status situation can be remotely monitored on HVSCADA workstations.

2.0 Services and manpower involved

Duty Switching Operator must be the Authorized Person as defined in the Procedure TS-I-P/T/003 “Electrical System – Operation and Maintenance”, who shall be registered and authorized by AA.

3.0 Contingency Procedures

Step	Immediate Action to be taken	Work Location	Responsible person
1	<ul style="list-style-type: none"> Alert FRT & Ad-hoc Emergency Team for GH1 auto start up function failure. 	• FRTMO	<ul style="list-style-type: none"> Duty System Controller or his delegate
2	<ul style="list-style-type: none"> Inform IAC, TOD, LD and Manager, Electrical Services Maintenance for GH1 auto start up function failure. 	• FRTMO	<ul style="list-style-type: none"> Duty System Controller or his delegate
3	<ul style="list-style-type: none"> Switch the local / auto selector to local at generator control panel. Ad-hoc emergency team's A.P. should be standby at GH1. Inform CLP Power System Control Center 	• GH1	<ul style="list-style-type: none"> FRT's Authorized Person Ad-hoc Emergency Team's A.P.
4	<ul style="list-style-type: none"> In case of power failure, carry out emergency power restoration under manual switching sequence if necessary. 	• GH1	<ul style="list-style-type: none"> Duty System Controller or his delegate Maintenance Contractor Authorized Persons Ad-hoc Emergency Team's A.P.
5	<ul style="list-style-type: none"> Call maintenance contractor to take follow-up action and carry out fault rectification of the auto function of the emergency power supply system within 4 hours. 	• GH1	<ul style="list-style-type: none"> Maintenance Team
6	<ul style="list-style-type: none"> If the system is resumed, reinstate the auto / local selector switch to auto after obtain approval. 	• GH1	<ul style="list-style-type: none"> Duty System Controller or his delegate Maintenance Contractor Authorized Persons Ad-hoc Emergency Team's A.P.
7	<ul style="list-style-type: none"> Inform IAC, TOD, LD, Manager, Electrical Services Maintenance and CLP Power System Control Center after emergency power system resumed to normal condition. 	• FRTMO	<ul style="list-style-type: none"> Duty System Controller or his delegate

D Contingency Procedures during the passage of Tropical Cyclones

- 1.1 When typhoon signal no. 1 or above is hoisted, maintenance contractor shall be alerted by TSI Typhoon Support Team or Assistant Manager, Fault Response for performing the typhoon precautionary work such as electrical plant rooms inspection with checklist to ensure the electrical system are under normal condition when instructed.
- 1.2 TSI Typhoon Support Team shall coordinate with maintenance contractor to provide typhoon duty staff roster to ensure sufficient manpower as stipulated in the maintenance contract, with all necessary tools and equipment to perform the typhoon precautionary work in a safe and efficient manner.
- 1.3 After lowering of the typhoon signal and completion of the inspection of all electrical plant rooms and ensure the electrical system are under normal condition, TSI Typhoon Support Team may official dismiss maintenance contractor's typhoon precautionary team

E. Cyber Security

System cyber security threat level based on the following risk rating:

Threat Level	System
Low	System uses no IT-based systems.
Medium	System uses some closed data-collection and/or alarm systems based on sensors or IoT devices.
High	System uses integrated SCADA systems, cloud-based data collections systems, or IP-based monitoring and control systems.

- Emergency Power Systems (Terminal) – Threat Level: High

Rationale for threat level

System uses HVSCADA and IPACS system for monitoring the status of the HV distribution system and GBMS system for monitoring the status of the LV distribution system.

Mitigation actions taken

Access to the locations of system workstations are restricted. Only authorized person is allowed to control the system. Further action may be taken on the results of the TS OT Systems Information System Cybersecurity Vulnerabilities survey.

In case of suspected cyber-attack, Risk & Cybersecurity Team of ITD shall be informed for further investigation.

F. Interface with Other Operational Organizations during Contingency

- 1.1 FRTMO
- 1.2 IAC
- 1.3 CLP Power System Control Center
- 1.4 TOD
- 1.5 LD

Part II - Emergency Power Systems (Airfield)

A. System Description

1.0 Introduction

- 1.1 AAHK Airfield Infrastructure Power Network is composed by city main CLP power and Emergency Power System. The emergency power system consists of LV Generators and is used to backup city main power supply. When the city main CLP power is lost, the Emergency Power System would automatically cut-in within 15 seconds and provide power supply to those equipment classified as “essential”.
- 1.2 In normal operation, city main CLP power feeder supplies power to both essential and non-essential loads while the local LV emergency generators are on standby status. When city main power is unstable or loss, the generators would automatically startup and changeover to supply power to the essential loads within 15 seconds, while non-essential loads would be shed from power supply. When city main power recovers, the system would automatically resume to normal operation status, i.e. city main power would changeover, and restore all essential and non-essential loads, and generators would automatically turn off.
- 1.3 In case of local LV generator failure, three mobile LV generators could be mobilized and provide power to the essential loads.
- 1.4 The LV substations and the respective backup LV generators are tabulated as below:

No.	Generator Set	Rating	Backup S/S	Load Description
1	GL1	2 x 1000kVA	V	AGL Vault B, Security check point 1, Gate house 3, Customs point and Communication room CR71.
2	GL2	2 x 1000kVA	M	AGL Vault A, Communication room CR58, Fence lighting, ILS for CAD facilities building (GP, LLZ and New GBAS & Antenna Platform)
3	GL3	1 x 1500kVA	X	Sewage pump station 4 & 5, Aviation fuel system in forward area, AOC, Eastern Airfield Tunnel, Government facilities MET enclosure; Northern Fire Fighting Station.
4	GL4	1500kVA	I	Apron lighting in Cargo Terminal area, fence lighting, Gate House 3, Eastern Airfield Tunnel, ILS for CAD facilities building (GP)
5	GL5	1000kVA	H	Fence lighting, Gate House 1, TCSS
6	GL7	1000kVA	Q, N	S/S Q: Apron Lighting, Sewage pump station 8, Fence Lighting, Oil separator & pumping station 4. S/S N: Security system, communication system, AGMB

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No.	Generator Set	Rating	Backup S/S	Load Description
7	GL8	1000kVA	R	Oil separator & pumping station 1, TCSS, communication system
8	GL13	2 x 1250kVA	Z	AGL Vault C, Vault C Extension, Vault C Annex, Magnetic flowmeter and ILS for CAD facilities building (GP, LLZ & ATF)
9	GL14	2 x 1250kVA	P	AGL Vault D, Vault D Extension, Vault D Annex, Magnetic flowmeter and ILS for CAD facilities building (GP, LLZ & ATF)
10	GL6	1500kVA	L, D	S/S L: Aviation fuel system, Sewage pump station 7. S/S D: Apron lighting in general aviation/fire training pad area, Southern Fire Fighting Station, HKO underground equipment at SRW.
11	GL10	1000kVA	S	Sewage pump station 1 & 6, Waste treatment plant, TCSS
12	GL11	1500kVA	T	Sewage pumps station 2F, 2G 12F & 12G, Gate House 2 & ILS for CAD facilities building (LLZ).
13	GL12	1 x 1000kVA, 1 x 1500kVA	AD	HV Generator House 1, AAB, Gate House 1, GTC civil drainage sump pump 11, Vehicle Examination Centre. Backup IAC.
14	MG1	100kVA	--	Mobile Generator
15	MG2	1500 kVA	--	Mobile Generator
16	MG3	200kVA	--	Mobile Generator
17	Generator – MSUB – G1	250kVA	Midfield South Utility Building	-FS Fire Pump System -Essential light & power at South Runway Road
18	Generator – MSUB - G2	1030kVA	Midfield South Utility Building	- South Runway Road of Storm Water Pump - SCADA / Comms System - Lighting at Underpass Road
19	Generator - Chiller Building G1	1650kVA	Chiller Building	-MCC-101 for Chiller Pump No.1, Associated FWP, CDWP, CHWP & Cooling Tower -Communication Room 74
20	Generator - Chiller Building G2	1650kVA	Chiller Building	-MCC-102 for Chiller Pump No.2, Associated FWP, CDWP, CHWP & Cooling Tower
21	Generator - Chiller Building G3	1650kVA	Chiller Building	-MCC-105 for Chiller Pump No.5, Associated FWP, CDWP, CHWP & Cooling Tower
22	Generator - Chiller Building G4	2250kVA	Chiller Building	-MCC-104 for Chiller Pump No.4, Associated FWP, CDWP, CHWP & Cooling Tower
23	Generator – Substation B13	1250kVA	Substation B13	- HML302 and pillar box

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No.	Generator Set	Rating	Backup S/S	Load Description
24	Generator – Ancillary Building 1 (AB1)	1250kVA	Ancillary building 1	-Communication Room CR224 -Essential light & power in LV switch room
25	Generator - New T1 midfield screening building	275kVA	New T1 midfield screening building	FS Equipment and Standby Power for HML L413 and L423
26	Generator - LV plant room no.3	1600kVA	LV plant room no.3	Western Tunnel light (North) control panel , Tunnel Light and Power, Tunnel Sump Pump and Jet Fan
27	Generator - LV plant room no.4	1100kVA	LV plant room no.4	Western Tunnel light (South) control panel , Tunnel Light and Power, Tunnel Sump Pump and Jet Fan
28	Generator - Vault D extension	200kVA	Vault D extension	1. Standby Power for HML M24, M34 and M36, 2. Essential light & power in LV switch room, Essential light & power in AGL room
29	Generator – IAC	1 x 1700kVA, 1 x 400kVA	IAC	Essential light & power for IAC
30	Generator – Substation 2	1500kVA	Substation 2	Essential power for Comms equipment and fence lighting
31	Generator – ARE Store and Interim ATC Tower	1 x 750kVA 1 x 800kVA	ARE Store & Interim ATC Tower	Essential power for ATC Equipment Room, HKO Equipment Room and AGL Equipment Room
32	Generator - Vault E	2 x 1500kVA	Vault E	AGL Vault E, Vault E communication room, HKO equipment, HKPF equipment and ILS for CAD facilities building (GP, LLZ & ATF).
33	Generator - Vault F	2 x 1500kVA	Vault F	AGL Vault F, Vault F communication room, HKO equipment and ILS for CAD facilities building (GP, LLZ & ATF).

B. Contingency Procedures for Emergency Power Supply

1.0 Criteria for activating contingency plan

- 1.1 In case of power failure (interruption of AAHK 11kV Airfield Infrastructure Power Network), generators will be automatically activated.
- 1.2 The system changeover and the status situation can be remotely monitored on Airfield-SCADA workstations.
- 1.3 If the local generators failed to activate or malfunction, contingency measures shall be initiated by Fault Response Team (FRT) to mobilize mobile generators.

2.0 Services and manpower involved

- 2.1 All works execution involving emergency restoration shall be undertaken by appropriate Registered Electrical Worker (REW) with appropriate permitted work code.
- 2.2 All works shall comply with the latest edition of Electricity Ordinance (Cap.406), EMSD's Code of Practice for the Electricity (Wiring) Regulations and Procedure TS-I-P/T/003 "Electrical System – Operation and Maintenance".
- 2.3 Towing of mobile generator be executed by qualified person who possess appropriate Towing Vehicle License issued by Transportation Department, HKSAR Government and Airside Driving permit.

3.0 Contingency Procedures

- 3.1 When power interruption or outage is found at airfield infrastructure power network, FRT shall report the incident to IAC-ACC and notify the related AM immediately.
- 3.2 FRT shall notify the maintenance contractor(s) and coordinate to identify the affected areas and recovery time. FRT shall verify if local generator(s) has successfully changeover.
- 3.3 If the local generator fails to start up or mal-function after initiation, FRT shall immediately mobilize mobile generator(s) to the affected substation(s). FRT shall coordinate to connect mobile generator(s) to the affected substation(s).
- 3.4 If the mobile generator fails to start up or mal-function after initiation, FRT shall report the status and affected facilities to IAC-ACC. FRT shall coordinate with maintenance contractor for the emergency repair of mobile generator.

- 3.5 FRT shall initiate emergency repair for the affected electrical network facilities. If the system fault is related to CLP Power supply side, FRT shall coordinate with CLP Power for the update system status and the recovery time.
- 3.6 For prolonged power suspension anticipated, FRT shall coordinate with maintenance contractor on the diesel fuel refilling for generators.
- 3.7 When electrical supply is resumed normal, FRT shall verify the electrical supply restoration of all switching stations and the affected generators resume to standby mode. FRT shall notify IAC-ACC and AM for system recovery.

4.0 Interface with other operational organizations during contingency

- 4.1 IAC-ACC
- 4.2 IAC-LD
- 4.3 CAD - ATC
- 4.4 TSI

5.0 Data preservation procedures

FRT shall provide a comprehensive report for the incidence with content include but not limit to, action logs, data logs retrieved from Airfield SCADA, incidence diagnosis etc.

C. Cyber Security

System cyber security threat level based on the following risk rating:

Threat Level	System
Low	System uses no IT-based systems.
Medium	System uses some closed data-collection and/or alarm systems based on sensors or IoT devices.
High	System uses integrated SCADA systems, cloud-based data collections systems, or IP-based monitoring and control systems.

- Emergency Power Systems (Airfield) – Threat Level: High

Rationale for threat level

System uses Airfield SCADA system for monitoring the status of the LV distribution system.

Mitigation actions taken

Access to the locations of system workstations are restricted. Only authorized person is allowed to control the system. Further action may be taken on the

results of the TS OT Systems Information System Cybersecurity Vulnerabilities survey.

In case of suspected cyber-attack, Risk & Cybersecurity Team of ITD shall be informed for further investigation.

End of BCP – E1

Business Continuity Manual

Business Continuity Plan: E2 Flight Information Display System

		Signature	Revision	Effective Date
Updated By	AGM, Solutions Planning & Operation Readiness, ABD	 Rita Lee	34	Nov 2023
	Assistant General Manager TOD	 Joanne Ma		
Reviewed By	Assistant General Manager BCP, SSBC	 Emily Chu		
Approved By	General Manager SSBC	 David Jea		

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BCP – E2. Flight Information Display System

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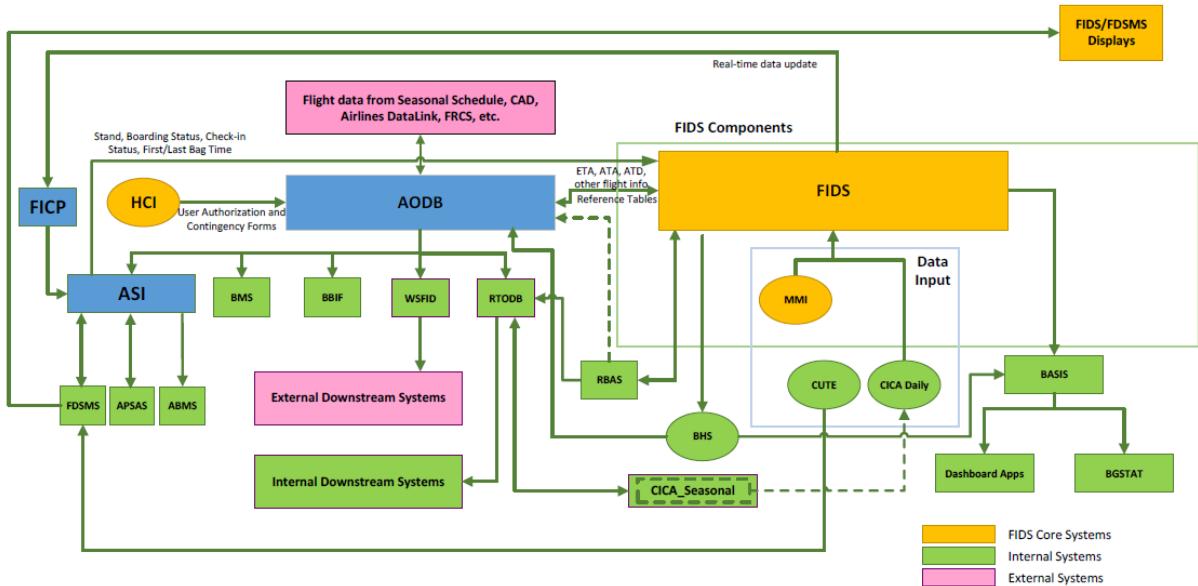
1. ABBREVIATIONS

AA	Airport Authority
ACC	Apron Control Centre
A-CDM	Airport Collaborative Decision Making
AD	Airfield Department
ADM	Airport Duty Manager
AOC	Airline Operators Committee
AODB	Airport Operational Database
APV	Apron Passenger Vehicle
ASI	Airport Services Integration Platform
ATA/ATD	Actual Time of Arrival/ Departure
BASIS	Baggage Analysis and Statistics Information System
BBIF	Browser-Based Information Network Form
ABD	APM and Baggage Department
BGSTAT	Baggage Data Statistics Repository
BHS	Baggage Handling System
BMS	Baggage Management System
CAD	Civil Aviation Department
CICA	Check-in Counter Allocation System
CIO	Chief Information Officer
CUTE	Common Use Terminal Equipment
DRSAS	Disaster Recovery System – Airport Systems
ETA/ ETD	Estimated Time of Arrival/ Departure
FICP	Flight Information Customized Program
FIDS	Flight Information Display System
FDSMS	Flight Display Management System
HCI	Human Computer Interface
HKIA	Hong Kong International Airport
IAC	Integrated Airport Centre
ITD	Information Technology Department
ITP	Information Technology Procedure
IVRS	Interactive Voice Response System
LD	Landside Department
MMI	Man Machine Interface
MTRC	MTR Corporation
PA	Public Address
PBS	Positive Boarding System
PFIDS	Personal FIDS
POC	Port-of-call

RBAS	Reclaim Belt Allocation System
RTODB	Real-Time Operational Database
SAS	Stand Allocation System
IDI	Innovation & Data Insights
SOCC	System Operations Control Centre
STA/STD	Scheduled Time of Arrival/ Departure
TOD	Terminal Operations Department
TLDL	Terminal & Landside Duty Manager
TLPML	Terminal & Landside Procedures Manual
TMS	Terminal Management System
TRC	Telephone Response Centre
WADIDB	Web Application Deployment Infrastructure Database
WIDS	Web-Based Information Display System
WSFID	Web Service for Flight Information Distribution

2. FLIGHT INFORMATION DISPLAY SYSTEM (FIDS)

2.1. Normal FIDS Systems Data Flow Diagram



2.2. Purpose

The purpose of this document is to record the contingency arrangement for ensuring continuation of flight data update and dissemination to the direct interfaces of FIDS in a timely manner in the event of the failure of the FIDS system under different scenarios, including:

- FIDS host server failure
- AODB failure
- ASI failure
- RBAS failure
- CICA failure
- Airport Disaster

3. FIDS HOST SERVER FAILURE

3.1. Functionalities of FIDS Host Server

FIDS host server is the most important component in FIDS system. It receives and disseminates the latest flight information and status update to passengers and airport operators via other AA systems or components. FIDS system cannot function at all when FIDS host server fails, and therefore contingency measures are required in supporting the continuous provision of flight information to FIDS displays and downstream systems to minimize the disruption to airport operations.

3.2. Consequences

- a. Flight information on FIDS/FDSMS displays is outdated
- b. AD FIDS Duty Team cannot update flight information via MMI.
- c. Check-in counter/boarding gate status updated on FDSMS cannot be sent to FIDS systems.
- d. Flight information retrieved from IVRS/PA is out-dated.
- e. Flight information in AODB downstream systems (such as BMS) is outdated.
- f. Flight information retrieved from RTODB or WSFID downstream systems (such as My Flight, PFIDS, IVRS/PA, eDirectory) is out-dated.

3.3. Contingency Measures

When FIDS host server is out of service for over 30 minutes, AODB HCI will be used to enter flight information into AODB for distribution to its downstream systems. RBAS update will be switched over to AODB for flight information retrieval and reclaim allocation distribution for downstream systems.

No contingency arrangement is available for BASIS as its downstream systems are dashboards and for statistics systems only.

3.4. Role and Responsibilities

- a. Airport Duty Manager (ADM)
 - i. ADM is the person to monitor the situation closely on impact to airport operation and inform related parties in preparation of other airport operation procedures to reduce impact to passengers and airport operations.

ii. Upon activation, ADM shall inform AD, ABD, IDI, TOD, LD and notify SOCC to implement this procedure accordingly.

iii. ADM shall inform management and related parties in preparation of other airport operation procedures if situation is worse.

b. Airfield Department (AD)

i. AD FIDS Duty Team is responsible for updating flight information using FIDS contingency system i.e. HCI Flight Contingency Form to continue providing updated flight information to passengers and airport operators. Please refer to User Guide – HCI Flight Contingency Form.

ii. AD FIDS Duty Team shall call ABD Duty Team for departure flight updates including flight cancellation, adhoc flight and ETD.

c. Terminal Operations Department /Landside Department (TOD / LD)

i. TLDM or his/her delegate shall notify AOC of the procedure activation and request airlines/handling agents to provide update flight information via fax/email.

ii. TOD Duty Team shall also check if the following systems have updated flight information input via HCI Flight Contingency Form.

- FIDS/FDSMS Displays
- HKIA website
- IVRS
- PA
- PFIDS
- Mobile Apps including My Flight
- Dashboard Apps

d. Systems Operations Control Centre (SOCC)

Upon notification by ADM, SOCC shall activate the necessary contingency procedures including HCI Flight Contingency Form and RBAS O&M Manual Contingency Plan when FIDS host server is out of service for over 30 minutes. SOCC shall deactivate the contingency procedures upon the resumption of FIDS host server.

e. Airlines or Handling Agents

Airlines or handling agents shall inform AD FIDS Duty Team of updated flight schedule via fax/call/email.

f. Airline Operators Committee (AOC)

AOC shall keep all AOC members informed of activation and deactivation of contingency procedure.

3.5. Procedures Guidelines

- a. SOCC shall inform ADM, TLDM or his/her delegate and AD FIDS Duty Team upon FIDS host server failure. In case of suspected cyber-attack, SOCC shall also inform Risk & Security section of ITD for further investigation.
- b. SOCC shall provide estimated resumption time every 30 minutes to ADM, TLDM or his/her delegate and AD FIDS Duty Team.
- c. If FIDS host server is out of service for over 30 minutes, ADM shall inform all parties about the activation of FIDS contingency procedures immediately.
- d. SOCC shall implement RBAS contingency procedure immediately. Please refer to RBAS Operation & Maintenance Manual Contingency Plan (Section 4.5 Case 3).
- e. AD FIDS Duty Team shall input all flight updates through HCI Flight Contingency Form. Please refer to User Guide – HCI Flight Contingency Form.
- f. Upon system resumption, SOCC shall inform all parties and deactivate the procedures.

4. FDSMS SERVER FAILURE / NETWORK EQUIPMENT FAILURE

4.1 Functionalities of FDSMS Server

The FDSMS Server is to drive the display of flight information for all FIDS display device units at HKIA. Under this scenario, communication between AODB and FIDS remains normal. However, the latest flight information cannot be reflected on the FIDS displays at those locations caused by the failure of the FDSMS Server.

4.2 Consequences

Updated flight information cannot be delivered to passengers in-terminals. The last updated flight information will remain on the displays for 1 hour on all display devices.

4.3 Contingency Measures

When FDSMS server is out of service for over 30 minutes, WIDS will be used to display flight information on FIDS displays that have been affected by the FIDS display screen.

4.4. Roles & Responsibilities

a. Airport Duty Manager (ADM)

ADM shall assess the failure impact to airport operations and inform related parties in preparation of other airport operation procedures to reduce impact to passengers and airport operations.

b. Terminal Operations Department / Landside Department (TOD / LD)

- i. TOD and LD Duty Team shall patrol the affected area and verify if the WIDS contingency display is in place.
- ii. TLDM or his/her delegate as appropriate shall determine if Duty Officers shall be deployed to the affected area to assist passengers.

c. Systems Operations Control Centre (SOCC)

SOCC shall activate the contingency procedures i.e. WIDS contingency if failure is over 30 minutes and deactivate procedures upon resumption. Please refer to ITP-085 FIDS Contingency Procedure.

4.5. Procedure Guidelines

- a. SOCC shall inform ADM, TLDM or his/her delegate as appropriate on the service impact. In case of suspected cyber-attack, SOCC shall also inform Risk & Security section of ITD for further investigation.

- b. SOCC shall provide estimated resumption time every 30 minutes to ADM, TLDM or his/her delegate as appropriate.
- c. SOCC to activate WIDS contingency to those affected FIDS displays which are out of service for over 30 minutes.
- d. If FDSMS Server failure has impact to check-in counters or transfer counters, SOCC shall publish airlines' corporate logo onto FIDS displays at check-in counters and transfer counters according to the latest counter booking. Please refer to ITP-085 FIDS Contingency Procedure.
- e. SOCC shall deactivate the procedure if FDSMS server resumes normal.
- f. TOD and LD Duty Team shall check if all FIDS displays resume normal.

5. AODB FAILURE

5.1. Functionalities of AODB

There are two major functions for AODB in supporting FIDS operation:

- a. Update FIDS system with the following data:
 - Seasonal schedule
 - Active auto flight data update (Registration mark, aircraft subtype, POC, Origin/Destination, total passenger no.) from airlines/handling agents
 - Active flight data update from CAD (e.g. ETA, ATA, ATD) and airlines/handling agents (from data link) via HCI Flight Contingency Form user authorization function.
- b. Disseminating up-to-date flight data to downstream systems/users.

5.2. Consequences

- a. No real time update of flight information obtained from CAD or via data links.
- b. AODB downstream systems are affected without update information: BMS, WIDS, HKIA website, IVRS, PA, BBIF, WSFID, Mobile Apps, PFIDS, PBS, e-Directory and Dashboard Apps. TRC in full manual mode.

5.3. Contingency Measures

When AODB is out of service for over 15 minutes, AD FIDS Duty Team shall manually update flight information received from CAD and airlines/handling agents. Downstream users will receive flight update via fax/email.

5.4. Roles & Responsibilities

- a. Airport Duty Manager (ADM)

ADM shall assess the failure impact to airport operations and inform related parties in preparation of other airport operation procedures to reduce impact to passengers and airport operations.

b. Airfield Department (AD)

AD FIDS Duty Team is responsible for collecting necessary flight information from A-CDM and, manually update the arrival/departure time in FIDS MMI.

c. Systems Operations Control Centre (SOCC)

SOCC shall activate the contingency procedures if AODB is out of service for over 15 minutes and deactivate procedures upon AODB resumption.

d. Airlines or Handling Agents

Airlines or handling agents shall provide AD FIDS Duty Team of latest flight schedule via fax/email.

e. Airline Operators Committee (AOC)

AOC shall keep all AOC members informed of activation and deactivation of contingency procedure.

5.5. Procedure Guidelines

- a. SOCC shall inform ADM, TLDM or his/her delegate and AD FIDS Duty Team of system failure and activate necessary contingency measures if AODB is out of service for 15 minutes. In case of suspected cyber-attack, SOCC shall also inform Risk & Security section of ITD for further investigation.
- b. AD FIDS Duty Team shall gather ETA/ATA/ATD from A-CDM and from airlines/handling agents via fax/email and input the data directly into FIDS MMI.
- c. SOCC shall de-activate the flight information page and post the maintenance page on HKIA website, mobile apps and PFIDS.
- d. TLDM or his/her delegate shall request SOCC to forward flight information enquiry and public address request to manual response mode in order to be manned by TOD Duty Team.
- e. TOD Duty Team shall check and confirm the followings:
 - IVRS – Flight information enquiry has been diverted to TOD Duty Team for manual handling.
 - PA – Public address request has been diverted to TOD Duty Team for manual handling.
 - HKIA website – the maintenance page in has been posted.

- Mobile Apps – the maintenance page in has been posted.
 - PFIDS – the maintenance page in has been posted
- f. SOCC shall notify downstream systems/users including BBIF, WSFID and WIDS subscribers of downstream systems status and provide them with the flight information via fax/email by running data from FIDS systems.
- g. TOD Duty Team shall check if IVRS, PA, HKIA website, Mobile Apps, PFIDS, PBS and e-Directory and Dashboard Apps have resumed normal when contingency procedure is deactivated.

6. ASI Failure

6.1. Functionalities of ASI

ASI acts as a middleware for information exchange between different application systems. ASI connects FIDS to the following systems:

- From FDSMS: gate and check-in status
- From APSAS: stand/gate assignment and chocks time
- From ABMS: first bag and last bag time
- To FDSMS, APSAS, ABMS: real-time flight update

6.2. Consequences

- a. No real-time update such as ETA, ATA, ATD to FDSMS, APSAS and ABMS.
- b. Gate/check-in status, stand/gate assignment and arrival baggage delivery status will be outdated on FIDS/FDSMS displays and AODB's downstream systems such as BMS, WIDS, HKIA website, IVRS, PA, BBIF, WSFID, Mobile Apps, PFIDS, PBS and e-Directory.

6.3. Contingency Measures

When ASI is out of service for over 60 minutes, SOCC shall execute the ITP-1566 ASI Contingency Procedure.

6.4. Roles & Responsibilities

a. Airport Duty Manager (ADM)

ADM shall assess the failure impact to airport operations and inform related parties in preparation of other airport operation procedures to reduce impact to passengers and airport operations.

b. Airfield Department (AD)

AD FIDS Duty Team is responsible for updating check-in counter and boarding status in MMI upon requests from airlines/handling agents.

c. Terminal Operations Department (TOD)

- i. TOD Duty Team shall patrol and verify if flight information on FIDS displays are in order; or otherwise call SOCC for abnormal issues.

- ii. TLDM or his/her delegate as appropriate shall deploy Duty Officers to affected areas to assist passengers if necessary.

d. Systems Operations Control Centre (SOCC)

SOCC shall activate the ASI contingency procedures if ASI is out of service for over 60 minutes and deactivate procedures upon ASI resumption.

e. Airlines or Handling Agents

Airlines or handling agents shall keep AD FIDS Duty Team informed of check-in counter and boarding status via call.

f. Airline Operators Committee (AOC)

AOC shall keep all AOC members informed of activation and deactivation of contingency procedure.

6.5. Procedure Guidelines

- a. SOCC shall inform ADM, TLDM or his/her delegate and AD FIDS Duty Team of system failure and activate necessary contingency measures if ASI is out of service for 60 minutes. In case of suspected cyber-attack, SOCC shall also inform Risk & Security section of ITD for further investigation.
- b. TLDM or his/her delegate shall inform AOC of the activation of contingency procedure.
- c. Airlines/handling agents shall keep AD FIDS Duty Team informed of check-in counter and boarding status of departure flights via call.
- d. AD FIDS Duty Team shall update check-in counter and boarding status via MMI upon receiving calls from airlines/handling agents.

7. RBAS FAILURE

7.1. Functionalities of RBAS

RBAS is responsible for reclaim belt allocation. It gets arrival flight information from FIDS and sends allocated reclaim belt details to FIDS for further distribution to AODB then to other downstream systems such as FDSMS and WSFID.

7.2. Consequences

- a. FDSMS and WSFID subscribers including WIDS at baggage enquiry desks and Mobile Apps will be affected.
- b. Users cannot get updated reclaim assignment from FIDS/FDSMS displays, HKIA website and Mobile Apps.

7.3. Contingency Measures

When RBAS is out of service, ABD Duty Team shall update reclaim belt assignment on Human Computer Interface (HCI) immediately.

7.4. Roles and Responsibilities

- a. APM and Baggage Department (ABD)
ABD Duty Team shall update reclaim belt assignment on HCI.
- b. Terminal Operations Department (TOD)
 - i. TOD Duty Team shall patrol and verify if flight information on FIDS displays are in order; or otherwise call SOCC for abnormal issues.

7.5. Procedure Guidelines

- a. SOCC shall inform ADM, TLDM or his/her delegate of system failure if RBAS is out of service. In case of suspected cyber-attack, SOCC shall also inform Risk & Security section of ITD for further investigation.
- b. ABD Duty Team shall update reclaim belt assignment via HCI.

8. CICA FAILURE

8.1. Functionalities of CICA

Check-in Counter Allocation System (CICA) is an online booking system for counter allocation. The web-based interface of CICA allows airlines/handling agents and AA users to make online counter requests and amendments, view the most updated counter allocation status in text and graphic formats and generate tailor-made booking reports. The updated and confirmed check-in/transfer counter information via CICA will then be updated to FIDS displays.

For the detailed handling of CICA failure, please refer to TLPM/066 Contingency Procedure for Check-in Counter Allocation System (CICA).

9. AIRPORT DISASTER

9.1. Background

Airport disaster recovery operations procedure shall be implemented when physical locations where FIDS/AODB core systems are deployed get severely affected by disaster resulting in unavailability of both FIDS and AODB.

9.2. Possible Symptoms

The symptoms of FIDS host server failure and AODB failure are observed.

9.3. Consequences

Subject to the airport disaster situation, all FIDS and AODB related functions may not be performed and airport operations would be severely affected.

9.4. Contingency Measures

When the possible symptoms of airport disaster are observed, SOCC shall immediately inform ADM and escalate to ITD management, subject to the decision of CIO, SOCC shall activate the backup FIDS/AODB systems at the disaster recovery site in order to maintain the FIDS/AODB functions as much as possible.

9.5. Roles & Responsibilities

a. Airport Duty Manager (ADM)

ADM shall inform management and related parties in preparation of other airport operation procedures to reduce impact to passengers and airport operations when disaster recovery procedure is activated.

b. Terminal Operations Department /Landside Department (TOD / LD)

TLDM or his/her delegate as appropriate shall deploy Duty Officers to patrol affected areas to assist passengers if necessary and follow the disaster recovery operations procedure for necessary action.

c. Airfield Department (AD)

AD FIDS Duty Team shall responsible for the flight updating and follow the disaster recovery operations procedure as appropriate.

d. Information Technology Department (ITD)

ITD CIO is the person to activate/de-activate disaster recovery operations procedure and provides guidelines to related parties for action if appropriate.

e. Systems Operations Control Centre (SOCC)

SOCC shall provide technical support to reduce the system failure impact to airport operations.

9.6. Procedure Guidelines

- a. SOCC shall inform ADM, AD FIDS Duty Team, TLDM or his/her delegate of FIDS and AODB systems failure and escalate to ITD management. In case of suspected cyber-attack, SOCC shall also inform Risk & Security section of ITD for further investigation.
- b. Subject to the decision of ITD CIO after assessment on the failure impact to airport operations, SOCC would implement disaster recovery operations procedure. ADM shall inform management and related parties in preparation of other airport operation procedures to reduce impact to passengers and airport operations.

For details, please refer to the Disaster Recovery Operation and Maintenance Manual – DRSAS issued by ITD.

END OF BCP – E2

Business Continuity Manual

Business Continuity Plan: E3

General Building Management System (GBMS) & Supervisory Control and Data Acquisition (SCADA)

		Signature	Revision	Effective Date
Updated By	Senior Manager E&E, TSI	 James Ng		
Reviewed By	Assistant General Manager BCP, SSBC	 Emily Chu	32	Jun 2023
Approved By	General Manager SSBC	 David Jea		

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Part I – General Building Management System

A. System Description

1.0 Introduction

- 1.1 GBMS are installed in Terminal 1 (T1), Terminal 1 Extension (T1E), Sky Bridge, Terminal 1 Satellite Concourse (T1S), Terminal 1 Midfield Concourse (T1M), Ground Transportation Centre (GTC), Ground Transportation Lounge (GTL), Chiller Building for T1M, Midfield Tunnel Ventilation Building (MFTVB), West Hall Tunnel Ventilation Building (WHTVB), HKIA Community Building to facilitate control and monitor operation of Electrical Services.
- 1.2 The systems are equipped with servers, workstations, Field Control Unit (FCU) and programmable logic controllers (PLC).
- 1.3 All servers are located inside communication rooms and workstations are installed in Integrated Airport Centre (IAC), Backup IAC and Fault Response Team Management Office (FRTMO) for remote operations.
- 1.4 PLC is installed inside plant rooms directly connected to field device equipment.

B Physical System Risk

Risk	Description	Mitigation
Server Failure	Loss of communication between workstation and server due to server fail	<ul style="list-style-type: none">• Servers are redundant configuration• Auto failover to backup server once the duty server is fail
Fire	Damage of servers due to fire	<ul style="list-style-type: none">• Servers are located inside comms rooms protected by gas flooding system or dry pipe system
Water	Damage of server due to water ingress	<ul style="list-style-type: none">• Servers are located inside comms rooms protected by water leakage detection system

C Contingency Planning for GBMS Mal-functions

1.0 Failure identified during operating GBMS

- 1.1 The operator should inform Fault Response Team (FRT) immediately
- 1.2 FRT to assess impact and report to IAC if affecting terminal operations.

- 1.3 If the fault could not be rectified in time and will affect terminal operations, FRT will put the associated lighting control panel and power supply equipment into manual operation.

D Contingency Procedures during the passage of Tropical Cyclones

- 1.0 When typhoon signal no. 1 or above is hoisted, maintenance contractor shall be alerted by TSI Typhoon Support Team or FRT Assistant Manager, Fault Response for performing the typhoon precautionary work such as server checking, workstation checking, clear alarm log and system health checking to ensure the GBMS system are under normal condition when instructed.
- 2.0 TSI Typhoon Support Team shall coordinate with maintenance contractor to provide sufficient manpower as stipulated in the maintenance contract, with all necessary tools and equipment to perform the typhoon precautionary work in a safe and efficient manner
- 3.0 After lowering of the typhoon signal and completion of the inspection of all system server, workstation and system alarm log to ensure the GBMS system are under normal condition, TSI Typhoon Support Team may officially dismiss maintenance contractor's typhoon precautionary team.

E. Cyber Security

System cyber security threat level based on the following risk rating:

Threat Level	System
Low	System uses no IT-based systems.
Medium	System uses some closed data-collection and/or alarm systems based on sensors or IoT devices.
High	System uses integrated SCADA systems, cloud-based data collections systems, or IP-based monitoring and control systems.

- General Building Management System – Threat Level: High

Rationale for threat level

General Building Management System is used IP-based for network connection.

Mitigation actions taken

Access to the locations of system workstations are restricted. Only authorized person is allowed to control the system. Further action may be taken on the results of the TS OT Systems Information System Cybersecurity Vulnerabilities survey.

In case of suspected cyber attack, Risk & Cybersecurity Team of ITD shall be informed for further investigation.

F. Interface with Other Operational Organizations during Contingency

- FRTMO
- IAC
- TOD
- LD

Part II – Supervisory Control And Data Acquisition

A. Description

1.0 Introduction

- 1.1 Airfield SCADA are installed in Airfield and switching station to facilitate control and monitor operation of electrical equipment.
- 1.2 The systems are equipped with servers, workstations, Field Control Unit (FCU) and programmable logic controllers (PLC).
- 1.3 All servers are located inside communication rooms and workstations are installed in IAC, Backup IAC and FRTMO for remote operations.
- 1.4 PLC is installed inside plant rooms directly connected to field device equipment.

B. Physical System Risk

Risk	Description	Mitigation
Server Failure	Loss of communication between workstation and server due to server fail	<ul style="list-style-type: none">• Servers are redundant configuration• Auto failover to backup server once the duty server is fail
Fire	Damage of servers due to fire	<ul style="list-style-type: none">• Servers are located inside comms rooms protected by gas flooding system or dry pipe system
Water	Damage of server due to water ingress	<ul style="list-style-type: none">• Servers are located inside comms rooms protected by water leakage detection system

C Contingency Planning for AIRFIELD SCADA Mal-functions

- 1.0 Failure identified during operating Airfield SCADA
 - 1.1 The operator should inform Fault Response Team (FRT) immediately.
 - 1.2 FRT to assess impact and report to IAC if affecting terminal operations.
 - 1.3 If the fault could not be rectified in time and will affect terminal operations, FRT will put the associated high mast lighting control, Airfield Tunnel Control into manual operation.

D. Contingency Procedures during the passage of Tropical Cyclones

- 1.0 When typhoon signal no. 1 or above is hoisted, maintenance contractor shall be alerted by TSI Typhoon Support Team or FRT Assistant Manager, Fault Response for performing the typhoon precautionary work such as Server checking, workstation checking, clear alarm log and system health checking to ensure the SCADA system are under normal condition when instructed.
- 2.0 TSI Typhoon Support Team shall coordinate with maintenance contractor to provide sufficient manpower as stipulated in the maintenance contract, with all necessary tools and equipment to perform the typhoon precautionary work in a safe and efficient manner.
- 3.0 After lowering of the typhoon signal and completion of the inspection of all system server, workstation and system alarm log to ensure the SCADA system are under normal condition, TSI Typhoon Support Team may officially dismiss maintenance contractor's typhoon precautionary team.

E. Cyber Security

System cyber security threat level based on the following risk rating:

Threat Level	System
Low	System uses no IT-based systems.
Medium	System uses some closed data-collection and/or alarm systems based on sensors or IoT devices.
High	System uses integrated SCADA systems, cloud-based data collections systems, or IP-based monitoring and control systems.

- Supervisory Control And Data Acquisition – Threat Level: High

Rationale for threat level

System is used IP-based for network connection.

Mitigation actions taken

Access to the locations of system workstations are restricted. Only authorized person is allowed to control the system. Further action may be taken on the results of the TS OT Systems Information System Cybersecurity Vulnerabilities survey.

In case of suspected cyber-attack, Risk & Cybersecurity Team of ITD shall be informed for further investigation.

F. Interface with Other Operational Organizations during Contingency

1. FRTMO
2. IAC
3. AD
4. TOD

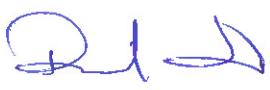
End of BCP – E3

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Business Continuity Manual

Business Continuity Plan: E4

Power Distribution System

		Signature	Revision	Effective Date
Updated By	Senior Manager E&E, TSI	 James Ng		
Reviewed By	Assistant General Manager BCP, SSBC	 Emily Chu	33	Aug 2023
Approved By	General Manager SSBC	 David Jea		

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A. System Description
1.0 HV Distribution System

1.1 Terminal 1

- 1.1.1 The incoming main high voltage power supply (11kV) for T1 are provided by CLP primary 132/11kV substation APA & APB supply via their respective CLP customer switching stations, A, B, C & CH. High voltage emergency power supply is feeding for T1 from the standby HV generators and Battery Energy Storage System (BESS) located at Generator House 1 (GH1).
- 1.1.2 Four main 11kV switch stations situated at different locations in Terminal 1 (T1), namely PA, PB, PC and PH. HV switchboards are dedicated to supplying the Ring Main Units (RMUs) and/or to the chillers in each substation.
- 1.1.3 There are 20 substations in T1, namely A1, A2, A3, A4, A6, B1, B2, B3, B4, B5, C1, C2, C3, C4, C5, C6, C7, C8, C8A and C9. Each substation houses the RMUs and HV/LV transformers, which are connected from their respective RMUs and feed to LV distribution boards.
- 1.1.4 The CLP distribution rooms are interconnected with HV switchboards in a HV/LV cabling network and the HV switchboards give input/output signals required by the HV Supervisory Control and Data Acquisition (SCADA) and Intelligent Protection, Automation, Control and Supervision (IPACS) systems.
- 1.1.5 HV SCADA system provides the remote monitoring, control, protection and automatic supply transfer functions for the HV distribution network in case of power failure. The IPACS system is the backup system for providing the automatic supply transfer function if the HV SCADA system fails.
- 1.1.6 Two under voltage relays and two three-phase 11kV/380V Voltage Transformers are installed at busbars on both sides of the 11kV switchboard. In case of CLP power failure, the four under voltage relays will be triggered and thus under voltage input signals will be sent to REF AS Bay Modules located inside HVSCADA/IPACS local panels in Substations PA, PB, PC and PH in T1, initiating the supply transfer and load shedding operations at 11kV switch stations.

1.2 T1 Satellite Concourse (T1S)

- 1.2.1 The incoming high voltage power supply (11kV) for T1S is provided by CLP customer switching station A through airfield substation EX.
- 1.2.2 The airfield SCADA system provides remote switching and monitoring functions for the HV distribution network.

2.0 LV Distribution System

2.1 Terminal 1

- 2.1.1. The low voltage sub-main distribution system consists of LV main switchboards, which distribute electrical power from the main transformers to various LV distribution boards. There are 20 LV switch stations in T1. Each LV switch station is supplied by at least two different HV power sources such that the lighting and general power in each zone can be fed from at least two different sources.
- 2.1.2. The LV distribution boards supply electricity to lighting and general power circuits to various locations.
- 2.1.3. For gantry lighting, lighting circuits of each zone are distributed from three gantry Lighting & Power (L&P) boards, which are supplied by different HV power sources. This setup ensures that only one-third of gantry lighting would be affected if there is a power interruption of either one of the HV power sources.
- 2.1.4. For public lighting and small power, L&P boards are responsible for each centralized zone and the L&P boards are supplied by different HV power sources. In case of power interruption, only one-third of L&P in the centralized zone would be affected.
- 2.1.5. The GBMS control circuits of L&P boards are protected by UPS. The control circuit supply of lighting circuits would not be disrupted in case of a power failure or voltage dip in the incoming sources.
- 2.1.6. For aircraft loading bridges and apron high mast lightings, power supplies are connected to 8 different HV switchboard bus sections, namely “PA-1”, “PA-2”, “PB-1”, “PB-2”, “PC-1”, “PC-2”, “PH-1” and “PH-2”, at Substations PA, PB, PC and PH respectively. In case of power failure from any one bus-section of HV switchboards, 87% of aircraft loading bridges and apron high mast lights can still be maintained and therefore the adverse impact in a concentrated zone would spread out.
- 2.1.7. For baggage handling system, power supply to the primary sorters, secondary sorters and delivery lines of BHS are connected to different transformers from different HV switching stations “PA”, “PB”, “PC” and “PH”. In case of power failure in any one of HV switching stations, 100% of Baggage Handling System can still be maintained in normal operation after supply changeover operation.

2.2. Terminal 1 Annex Building, Sky Bridge, Terminal 2, T1 Satellite Concourse, SkyPier Terminal, GTC & Ground Transportation Lounge

- 2.2.1. The LV distribution boards serve to distribute lighting and general electrical power circuits to various locations.
- 2.2.2. The GBMS control circuits of L&P boards are protected by UPS. The control circuit supply of lighting circuits would not be disrupted in case of the power failure or voltage dip from the incoming sources.
- 2.2.3. The emergency power system consists of LV Generators and is used to backup main power supply. When the main power is lost, the Emergency Power System would automatically cut-in within 15 seconds and provide power supply to those equipment classified as “essential”.

2.3. Integrated Airport Center (IAC)

- 2.3.1. The Integrated Airport Center is supplied by different CLPP LV feeders with essential supply backup by 2 nos. local LV emergency generators.
- 2.3.2. In case of either one supply power is unstable or loss, the auto changeover function would be activated to maintain the electrical power. When city main power recovers, manual operation for system resume to normal status is required.
- 2.3.3. In case of both supplies are loss, mobile LV generators could be mobilized and provide power to the IAC.
- 2.3.4. The LV distribution boards serve to distribute lighting and general electrical power circuits.
- 2.3.5. The critical loading are protected by 2 sets of 825kVA UPS. The electrical power would not be disrupted in case of the power failure or voltage dip from the incoming sources.

2.4. T1 Midfield Concourse

- 2.4.1. The T1 Midfield Concourse is supplied by LV feeders by CLP Power (CLPP) via 11 LV Switchboard with essential supply backup by 8 nos. LV generators.
- 2.4.2. The emergency power system consists of LV Generators and is used to backup main power supply. When the main power is lost, the Emergency Power System would automatically cut-in

within 15 seconds and provide power supply to those equipment classified as “essential”.

2.4.3. The GBMS control circuits of L&P boards are protected by UPS, and the control circuit supply would not be disrupted in case of the power failure or voltage dip from the incoming sources. The public lighting is controlled by the Digital Addressable Lighting Interface (DALI) system which is designed to be fail-safe and will remain the last status in case of voltage dip.

B. Physical System Risk

Risk	Description	Mitigation
Trespassers	Located in landside and airside with Access Control System (ACS)	In addition to ACS, Master Key System had been applied for the access control of the electrical plant rooms.
Fire	Protected by smoke detectors	Segregate the HV Sub-station into two compartments had been established.

C. Contingency Planning for Power Distribution System

1.0 Criteria for activating contingency plan

Below are the possible fault scenarios but not limited to the other unexpected fault conditions:-

- 1.1 Scenario 1 – YELLOW warning condition
CLP power healthy + HVSCADA/IPACS system failure + No activation of supply transfer
- 1.2 Scenario 2 – BROWN warning condition
CLP power healthy + HVSCADA/IPACS system failure + Activation of supply transfer due to false signal (Supply Transfer FULLY completed)
- 1.3 Scenario 3 – ORANGE warning condition
CLP power healthy + HVSCADA/IPACS system failure + Activation of supply transfer due to false signal (Supply Transfer PARTIALLY completed)
- 1.4 Scenario 4 – RED warning condition
CLP power failure + HVSCADA/IPACS system healthy
- 1.5 Scenario 5 – BLACK warning condition
CLP power failure + HVSCADA/IPACS system failure

2.0 CLP power failures denotes as :-

- 2.1 CLP power failure at switch station PA only;
- 2.2 CLP power failure at switch station PB only ;
- 2.3 CLP power failure at switch station PC only ;
- 2.4 CLP power failure at switch station PH only ;
- 2.5 CLP power failure at more than two switch stations.

3.0 HVSCADA/IPACS system failures denotes as:-

- 3.1 Supply Transfer (ST) Fail alarm received at FRTMO
- 3.2 ABB REF Bay Module failure
- 3.3 Both 2 PLCs fault alarm in Generator Interfacing Panel
- 3.4 Communication channel fail between two Bay Modules in the HVSCADA/IPACS panel

4.0 Services and manpower involved

FRT Duty Authorized Person must hold a certificate of Registered Electrical Worker with Grade H and Permitted Work type (A/B/C). They shall be registered and authorized by TSI according to Procedure TS-I-P/T/003 “Electrical System – Operation and Maintenance”.

5.0 Contingency Procedures

A minimum acceptable services standard in case of total power failure for incoming CLP power supplies and airport services are maintained under generator power supplies, which can be summarized as follow:

- 5.1 Maintain Terminal Temperature at 26°C,
- 5.2 Maintain at least 75% lighting during power interruption,
- 5.3 Maintain BHS 100% available after supply changeover,
- 5.4 Maintain supply to at least 7/8 loading bridge and high mast lighting;

6.0 Contingency Measures

- 6.1 Scenario 1 – YELLOW warning condition

Condition: CLP power healthy + HVSCADA/IPACS system FAILURE + No activation of supply transfer

Step	Immediate Action to be taken	Work Location	Responsible person
Y1	Alert FRT & Ad-hoc Emergency Team for YELLOW Warning condition.	FRTMO	Duty System Controller or his delegate
Y2	Call CLP System Control Center via hot line at FRTMO to confirm whether CLP power supply is healthy.	FRTMO	Duty System Controller or his delegate
Y3	Inform IAC, TOD, LD, AD, SOCC, AVSECO and Manager, Electrical Services Maintenance for HVSCADA/IPACS system failure.	FRTMO	Duty System Controller or his delegate
Y4	Switch OFF HVSCADA/IPACS system in HVSCADA/IPACS local panel	11kV Switch Station PA/PB/PC/PH	FRT's Authorized Person Ad-hoc Emergency Team's A.P.
Y5	Put circuit breaker (C/B) control switch in LOCAL position in the affected PA/PB/PC/PH Substation.	11kV Switch Station PA/PB/PC/PH	FRT's Authorized Person Ad-hoc Emergency Team's A.P.
Y6	In case of power failure, carry out emergency power restoration under manual switching sequence and/or start up emergency generator and BESS at GH1 by means of remote start push button installed at PH S/S if necessary.	11kV Switch Station PH, PA, PB & PC	Duty System Controller or his delegate Contractor Authorized Persons Ad-hoc Emergency Team's A.P.
Y7	Call maintenance contractor to take follow-up action and carry out fault rectification of the HVSCADA/IPACS system within 3 hours.	11kV Switch Station PA, PB, PC & PH	HVSCADA/IPACS Maintenance Team
Y8	If the HVSCADA/IPACS system is resumed, reinstate HVSCADA/IPACS & switchgear to normal status after obtain approval.	11kV Switch Station PA, PB, PC & PH	Duty System Controller or his delegate Contractor Authorized Persons Ad-hoc Emergency Team's A.P.
Y9	Inform IAC, TOD, LD, AD, SOCC, AVSECO, CLP System Control Center and Manager, Electrical Services Maintenance after HVSCADA/IPACS system resumed to normal condition.	FRTMO	Duty System Controller or his delegate

6.2 Scenario 2 – BROWN warning condition

Condition: CLP power healthy + HVSCADA/IPACS system FAILURE + Activation of supply transfer due to false signal (FULL supply transfer completed)

Step	Immediate Action to be taken	Work Location	Responsible person
B1	Alert FRT & Ad-hoc Emergency Team for BROWN Warning condition.	FRTMO	Duty System Controller or his delegate
B2	Call CLP System Control Center via hot line at FRTMO to confirm whether CLP power supply is healthy.	FRTMO	Duty System Controller or his delegate
B3	Inform IAC, TOD, LD, AD, SOCC, AVSECO and Manager, Electrical Services Maintenance for full supply transfer operation caused by HVSCADA/IPACS system failure.	FRTMO	Duty System Controller or his delegate
B4	Switch OFF HVSCADA/IPACS system in HVSCADA/IPACS local panel	11kV Switch Station PA/PB/PC/PH	FRT's Authorized Person Ad-hoc Emergency Team's A.P.
B5	Put circuit breaker (C/B) control switch in LOCAL position in the affected PA/PB/PC/PH Substation.	11kV Switch Station PA/PB/PC/PH	FRT's Authorized Person Ad-hoc Emergency Team's A.P.
B6	If the emergency generators and BESS at GH1 are triggered due to supply transfer operation, inform Electrical Maintenance Team to monitor the running status of emergency generator, BESS & fuel oil level in fuel tank	FRTMO GH1	Duty System Controller or his delegate
B7	By GBMS, reset the LV power supply for the affected L&P board & Tenant ACB.	GBMS W/S at FRTMO	Duty E&M members
B8	Closely monitor the load current which will not exceed emergency supply capacity.	FRTMO	Duty System Controller or his delegate
B9	If CLP power supply is healthy, inform IAC, TOD, LD, AD, SOCC, AVSECO & Manager, Electrical Services Maintenance for restore power supply from emergency supply source to CLP source.	FRTMO	Duty System Controller or his delegate
B10	Carry out the supply restoration at	PA/PB/PC/PH	FRT's Authorized

	the respective switch station from emergency supply source to CLP source manually under the instruction of Duty System Controller.	and other concerned HV/LV switch rooms	Person Ad-hoc Emergency Team's A.P.
B11	By GBMS, reset the LV power supply for the affected L&P board & Tenant ACB.	GBMS W/S at FRTMO	Duty E&M members
B12	If GBMS is mal-function, deploy FRT & Ad-hoc Emergency Team to check & manually reset the LV switchboard/L&P board/Tenant ACB/DB.	Affected LV switchboard/L&P board/Tenant ACB & DB	Duty E&M members FRT's member Ad-hoc Emergency Team
B13	HVSCADA/IPACS maintenance contractor to take follow-up action and carry out fault rectification of the HVSCADA/IPACS system within 3 hours.	11kV Switch Station PA, PB, PC & PH	HVSCADA/IPACS Maintenance Team
B14	If the HVSCADA/IPACS system is resumed, reinstate HVSCADA/IPACS & switchgear to normal status after obtain approval.	11kV Switch Station PA, PB, PC & PH HVSCADA/IPACS OWS at FRTMO	Duty System Controller or his delegate Contractor Authorized Persons Ad-hoc Emergency Team's A.P
B15	Inform IAC, TOD, LD, AD, SOCC, AVSECO, CLP System Control Center and Manager, Electrical Services Maintenance after HVSCADA/IPACS system resumed to normal condition.	FRTMO	Duty System Controller or his delegate

6.3 Scenario 3 – ORANGE warning condition

Condition: CLP power healthy + HVSCADA/IPACS system FAILURE + Activation of supply transfer due to false signal (PARTIAL supply transfer completed)

Step	Immediate Action to be taken	Work Location	Responsible person
O1	Alert FRT & Ad-hoc Emergency Team for ORANGE Warning condition.	FRTMO	Duty System Controller or his delegate
O2	Call CLP System Control Center via hot line at FRTMO to confirm whether CLP power supply is healthy.	FRTMO	Duty System Controller or his delegate
O3	Inform IAC, TOD, LD, AD, SOCC, AVSECO and Manager, Electrical Services Maintenance after HVSCADA/IPACS system resumed to normal condition.	FRTMO	Duty System Controller or his delegate

	Services Maintenance for partial supply transfer operation caused by HVSCADA/IPACS system failure.		
O4	Switch OFF HVSCADA/IPACS system in HVSCADA/IPACS local panel	11kV Switch Station PA/PB/PC/PH	FRT's Authorized Person Ad-hoc Emergency Team's A.P.
O5	Put circuit breaker (C/B) control switch in LOCAL position in the affected PA/PB/PC/PH Substation.	11kV Switch Station PA/PB/PC/PH	FRT's Authorized Person Ad-hoc Emergency Team's A.P.
O6	Carry out the load shed & supply transfer operation at the respective switch station manually to resume the power supply under the instruction of Duty System Controller.	PA/PB/PC/PH and other concerned HV/LV switch rooms	FRT's Authorized Person Ad-hoc Emergency Team's A.P.
O7	If the emergency generators and BESS at GH1 are triggered due to supply transfer operation, inform Electrical Maintenance Team to monitor the running status of emergency generator, BESS & fuel oil level in fuel tank	FRTMO GH1	Duty System Controller or his delegate Electrical Maintenance Team
O8	By GBMS, reset the LV power supply for the affected L&P board & Tenant ACB.	GBMS W/S at FRTMO	Duty E&M members
O9	Closely monitor the load current which will not exceed emergency supply capacity.	FRTMO	Duty System Controller or his delegate
O10	If CLP power supply is healthy, inform IAC, TOD, LD, AD, SOCC, AVSECO & Manager, Electrical Services Maintenance for restore power supply from emergency supply source to CLP source.	FRTMO	Duty System Controller or his delegate
O11	Carry out the supply restoration at the respective switch station from emergency supply source to CLP source manually under the instruction of Duty System Controller.	PA/PB/PC/PH and other concerned HV/LV switch rooms	FRT's Authorized Person Ad-hoc Emergency Team's A.P.
O12	By GBMS, reset the LV power supply for the affected L&P board & Tenant ACB.	GBMS W/S at FRTMO	Duty E&M members
O13	If GBMS is mal-function, deploy FRT & Ad-hoc Emergency Team to check & manually reset the LV	Affected LV switchboard/L&P board/Tenant	Duty E&M members FRT's member Ad-hoc Emergency

	switchboard/L&P board/Tenant ACB/DB.	ACB & DB	Team
O14	HVSCADA/IPACS maintenance contractor to take follow-up action and carry out fault rectification of the IPACS system within 3 hours.	11kV Switch Station PA, PB, PC & PH	HVSCADA/IPACS Maintenance Team
O15	If the HVSCADA/IPACS system is resumed, reinstate HVSCADA/IPACS & switchgear to normal status after obtain approval.	11kV Switch Station PA, PB, PC & PH	Duty System Controller or his delegate Contractor Authorized Persons Ad-hoc Emergency Team's A.P.
O16	Inform IAC, TOD, LD, AD, SOCC, AVSECO, CLP System Control Center and Manager, Electrical Services Maintenance after HVSCADA/IPACS system resumed to normal condition.	FRTMO	Duty System Controller or his delegate

6.4 Scenario 4 – RED warning condition

Condition: CLP power failure + HVSCADA/IPACS system healthy

Step	Immediate Action to be taken	Work Location	Responsible person
R1	Liaise with CLP System Control Center (SCC) via hot line at FRTMO for the following :- Exact scope/coverage of power failure; The power failure's location? Which CLP infeed cables and AA substations are affected? How long will the CLP power be resumed? Note : the answers to the above questions will assist Duty System Controller to assess the current situation better. This will help Duty System Controller to understand the impact to the Airport and hence make the best judgment/decision at that time.	FRTMO	Duty System Controller or his delegate
R2	Alert FRT, Ad-hoc Emergency Team & Electronic Team FRT for RED Warning condition.	FRTMO	FRT's Authorized Person Ad-hoc Emergency Team's A.P.
R3	Check the C/B status after supply transfer operation via HVSCADA/IPACS system and the	HVSCADA/IPACS OWS at FRTMO	Duty System Controller or his delegate FRT's Authorized

	affected switch rooms.	11kV Switch Station PA/PB/PC/PH	Person Ad-hoc Emergency Team's A.P.
R4	Inform IAC, TOD, LD, AD, SOCC, AVSECO and Manager, Electrical Services Maintenance for supply transfer operation caused by CLP power failure.	FRTMO	Duty System Controller or his delegate
R5	If the emergency generators and BESS at GH1 are triggered due to supply transfer operation, inform Electrical Maintenance Team to monitor the running status of emergency generator, BESS & fuel oil level in fuel tank	FRTMO GH1	Duty System Controller or his delegate E&M Team
R6	Reset the LV power supply by GBMS for the affected switchboard, L&P board & Tenant ACB according to its priority of impact.	GBMS W/S at FRTMO	Duty E&M members
R7	If GBMS is mal-function, deploy FRT & Ad-hoc Emergency Team to check & manually reset the LV switchboard/L&P board/Tenant ACB & DB.	Affected LV switchboard/L&P board/Tenant ACB & DB	Duty E&M members FRT's member Ad-hoc Emergency Team
R8	Closely monitor the load current which will not exceed emergency supply capacity. Otherwise, carry out load shed for non-essential load such as AHU, FCU, PCA, FGP.	FRTMO	Duty System Controller or his delegate
R9	Call CLP System Control Center (SCC) via hot line and ask for restoring time of CLP power supply.	FRTMO	Duty System Controller or his delegate
R10	If CLP power supply is resumed normal & stable, inform IAC, TOD, LD, AD, SOCC, AVSECO & Manager, Electrical Services Maintenance for restore power supply from emergency supply source to CLP source.	FRTMO	Duty System Controller or his delegate
R11	Carry out the supply restoration from emergency supply source to CLP source by HVSCADA/IPACS system/manual under the instruction of Duty System Controller.	PA/PB/PC/PH and other concerned HV/LV switch rooms	FRT's Authorized Person Ad-hoc Emergency Team's A.P.
R12	Inform IAC, TOD, LD, AD, SOCC, AVSECO, CLP System Control Center and Manager, Electrical Services Maintenance after power resumed to normal condition.	FRTMO	Duty System Controller or his delegate

6.5 Scenario 5 – BLACK warning condition

Condition: CLP power FAILURE + HVSCADA/IPACS system FAILURE

Step	Immediate Action to be taken	Work Location	Responsible person
BK1	<p>Liaise with CLP System Control Center (SCC) via hot line at FRTMO for the following :-</p> <p>Exact scope/coverage of power failure;</p> <p>The power failure's location?</p> <p>Which CLP infeed cables and AA substations are affected?</p> <p>How long will the CLP power be resumed?</p> <p>Note : the answers to the above questions will assist Duty System Controller to assess the current situation better. This will help Duty System Controller to understand the impact to the Airport and hence make the best judgment/decision at that time.</p>	FRTMO	Duty System Controller or his delegate
BK2	Alert FRT & Ad-hoc Emergency Team for BLACK Warning condition.	FRTMO	Duty System Controller or his delegate
BK3	Inform IAC, TOD, LD, AD, SOCC, AVSECO and Manager, Electrical Services Maintenance for power interruption caused by CLP power failure & HVSCADA/IPACS system failure.	FRTMO	Duty System Controller or his delegate
BK4	Switch OFF HVSCADA/IPACS system in HVSCADA/IPACS local panel	11kV Switch Station PA/PB/PC/PH	FRT's Authorized Person Ad-hoc Emergency Team's A.P.
BK5	Put circuit breaker (C/B) control switch in LOCAL position in the affected PA/PB/PC/PH Substation.	11kV Switch Station PA/PB/PC/PH	FRT's Authorized Person Ad-hoc Emergency Team's A.P.
BK6	Immediately press the remote start push button to start up the emergency generator and BESS. Inform Electrical Maintenance Team to keep closely monitoring of the running status of generator, BESS & fuel oil level in fuel tank.	PH Substation	Duty System Controller or his delegate FRT's Authorized Person Ad-hoc Emergency Team's A.P. E&M Team
BK7	Carry out the load shed & supply transfer operation at the respective switch station by manually to resume the power supply under the	PA/PB/PC/PH and other concerned HV/LV switch rooms	FRT's Authorized Person Ad-hoc Emergency Team's A.P.

	instruction of Duty System Controller.		
BK8	Restore the power supply of HV & LV switch rooms according to its priority of impact	PA/PB/PC/PH and other concerned HV/LV switch rooms	FRT's Authorized Person Ad-hoc Emergency Team's A.P.
BK9	By GBMS, reset the LV power supply for the affected LV switchboard, L&P board & Tenant ACB.	GBMS W/S at FRTMO	Duty E&M members
BK10	Closely monitor the load current which will not exceed emergency supply capacity.	FRTMO	Duty System Controller or his delegate
BK11	Call CLP System Control Center (SCC) via hot line and ask for restoring time of CLP power supply.	FRTMO	Duty System Controller or his delegate
BK12	If CLP power supply is resumed normal & stable, inform IAC, TOD, LD, AD, SOCC, AVSECO & Manager, Electrical Services Maintenance for restore power supply from emergency supply source to CLP source.	FRTMO	Duty System Controller or his delegate
BK13	Carry out the supply restoration from emergency supply source to CLP source by manual under the instruction of Duty System Controller.	PA/PB/PC/PH and other concerned HV/LV switch rooms	FRT's Authorized Person Ad-hoc Emergency Team's A.P.
BK14	HVSCADA/IPACS maintenance contractor to take follow-up action and carry out fault rectification of the HVSCADA/IPACS system within 3 hours.	11kV Switch Station PA, PB, PC & PH	HVSCADA/IPACS Maintenance Team
BK15	If the HVSCADA/IPACS system is resumed, reinstate HVSCADA/IPACS & switchgear to normal status after obtain approval.	11kV Switch Station PA, PB, PC & PH	Duty System Controller or his delegate Contractor Authorized Persons Ad-hoc Emergency Team's A.P.
BK16	Inform IAC, TOD, LD, AD, SOCC, AVSECO, CLP System Control Center and Manager, Electrical Services Maintenance after power & HVSCADA/IPACS resumed to normal condition.	FRTMO	Duty System Controller or his delegate

D Contingency Procedures during the passage of Tropical Cyclones

- 1.0 When typhoon signal no. 1 or above is hoisted, maintenance contractor shall be alerted by TSI Typhoon Support Team or FRT Assistant Manager, Fault Response for performing the typhoon precautionary work such as electrical plant rooms inspection with checklist to ensure the electrical system are under normal condition when instructed.
- 2.0 TSI Typhoon Support Team shall coordinate with maintenance contractor to provide sufficient manpower as stipulated in the maintenance contract, with all necessary tools and equipment to perform the typhoon precautionary work in a safe and efficient manner.
- 3.0 After lowering of the typhoon signal and completion of the inspection of all electrical plant rooms and ensure the electrical system are under normal condition, TSI Typhoon Support Team may officially dismiss maintenance contractor's typhoon precautionary team

E. Cyber Security

System cyber security threat level based on the following risk rating:

Threat Level	System
Low	System uses no IT-based systems.
Medium	System uses some closed data-collection and/or alarm systems based on sensors or IoT devices.
High	System uses integrated SCADA systems, cloud-based data collections systems, or IP-based monitoring and control systems.

- Power Distribution System – Threat Level: High

Rationale for threat level

Power Distribution System uses HVSCADA and IPACS system for monitoring the status of the HV distribution system and GBMS system for monitoring the status of the LV distribution system.

Mitigation actions taken

Access to the locations of system workstations are restricted. Only authorized person is allowed to control the system. Further action may be taken on the results of the TS OT Systems Information System Cybersecurity Vulnerabilities survey.

In case of suspected cyber-attack, Risk & Cybersecurity Team of ITD shall be informed for further investigation.

F. Interface with Other Operational Organizations during Contingency

- 1.0 FRTMO
- 2.0 IAC
- 3.0 CLP Power System Control Center
- 4.0 TOD
- 5.0 LD
- 6.0 AD
- 7.0 CAD
- 8.0 SOCC
- 9.0 AVSECO

End of BCP – E4

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Business Continuity Manual

Business Continuity Plan: E5

Seawater Provision, Chiller & Mechanical Building Management System (MBMS)

		Signature	Revision	Effective Date
Updated By	Senior Manager M&U, TSI	 Joseph Lam		
Reviewed By	Assistant General Manager BCP, SSBC	 Emily Chu	33	Aug 2023
Approved By	General Manager SSBC	 David Jea		

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Part I – Seawater Provision

A. System Description

1.0 General

- 1.1 There are 4 nos. seawater pump houses (i.e. SWPH-1, SWPH-1b, SWPH-5 and SWPH-ITT) at the HKIA supplying toilet flushing seawater to all buildings and cooling seawater to some of the buildings within the CLK Island.
- 1.2 Major maintenance contractors for the seawater supply system as below:
 - i. CLPe – E&M equipment inside seawater pump houses
 - ii. Wing Hing – Underground seawater supply pipework
 - iii. EMSD – Power supply to seawater pump houses
 - iv. CLPe – Under water facilities inside seawater pump houses
- 1.3 Seawater is drawn in from the surrounding sea via intake culverts. Thereafter, they are filtered and chemically treated before being pumped and distributed to the users, generally via dual supply mains.
- 1.4 Seawater discharged from the cooling circuit is returned to nearby sea via the associated outfalls of the storm water system. Seawater after the toilet flushing is discharged to the foul sewer network.

2.0 SWPH-1

- 2.1 There are 3 nos. seawater supply circuits for SWPH-1, being PTB circuit, GTC circuit and ATCC Circuit. Each of these circuits have their own seawater pumps and supply pipework.

- 2.2 Major users and key features for the different circuits as below:

Circuit	Major Users	Key Features
PTB circuit of SWPH-1	Terminal 1	<ol style="list-style-type: none"> a) 2 x 1100mm diameter mains from SWPH-1 b) 6 nos. seawater pumps operated according to a pre-defined look up table to match the demand c) Discharge mains inter-connected with the GTC circuit of SWPH-1 which in turn inter-connected with the SWPH-1b circuit for enhanced reliability

Circuit	Major Users	Key Features
GTC circuit of SWPH-1	Airport Authority Building, SkyPier Terminal, T1 Satellite Concourse, Ground Transportation Centre, HKIA Commercial Building, Marriott Airport Hotel, Asia World Expo, Regal Airport Hotel, Car Park 4 etc	<ul style="list-style-type: none"> a) 2 x 800mm diameter mains from SWPH-1 b) 4 nos. seawater pumps operated at variable speeds to match the demand c) Discharge mains interconnected with the PTB circuit of SWPH-1 and the SWPH-1b circuit for enhanced reliability
ATCC circuit of SWPH-1	ATC Tower and the Back-up Tower, T1 Midfield Concourse, T1 Annex Building	<ul style="list-style-type: none"> a) 1 x 350mm diameter main from SWPH-1 b) 3 nos. seawater pumps operated at variable speeds to match the demand

3.0 SWPH-1b

3.1 Major users and key features for the SWPH-1b as below:

Circuit	Major Users	Key Features
SWPH-1b	HKIA Tower	<ul style="list-style-type: none"> a) 2 x 800mm diameter mains from SWPH-1b b) 5 nos. seawater pumps operated at fixed speed to match the demand (Power supply arrangement limited that only 3 nos. can be operated at any one time) c) Discharge mains interconnected with the GTC circuit of SWPH-1 which in turn inter-connected with the PTB circuit of SWPH-1 for enhanced reliability

4.0 SWPH-5

4.1 Major users and key features for the SWPH-5 as below:

Circuit	Major Users	Key Features
SWPH-5	HACTL's Super Cargo Terminal and Express Cargo Centre, Cathay City, Headland Hotel, Air Mail Centre, Airport Police Station, Airport Fire Station, Government Flying Services, HAECO etc.	<ul style="list-style-type: none"> a) 2 x 1200mm diameter mains from SWPH-5 b) 9 nos. seawater pumps operated at variable speeds to match the demand

5.0 SWPH-ITT

5.1 Major users and key features for the SWPH-ITT as below:

Circuit	Major Users	Key Features
SWPH-ITT	11 Skies, future development of NCD etc.	<ul style="list-style-type: none"> a) 4 x 700mm , 2 x 1000mm & 2 x 900mm diameter mains from SWPH-ITT b) 6 nos. seawater pumps operated at variable speeds to match the demand

B. Physical System Risks

Risk	Description	Mitigation
Temporary Power Supply Failure	Interruption of seawater supply due to minor suspension of power (less than 0.2 second with reasonable remaining power on all phases)	<u>PTB circuit of SWPH-1 and SWPH-1b circuit</u> No interruption due to the power support of the control circuit from back-up system <u>GTC circuit and ATCC circuit of SWPH-1 and SWPH-5 circuit</u> Resume within 5 minutes upon power resumption

Power Supply Failure	Interruption of seawater supply due to suspension of power (more than 0.2 second)	<p><u>All circuits except ATCC circuit of SWPH-1</u></p> <p>Isolate the defective main and maintain partial resumption of seawater supply via the other healthy dual main within 30 minutes via back-up seawater supply from SWPH-1b circuit (provided that power supply to SWPH-1b circuit is not affected)</p> <p><u>ATCC circuit of SWPH-1</u></p> <p>Co-ordinate with CAD to switch their cooling system from seawater cool to air cool</p> <p><u>SWPH-1b circuit</u></p> <p>Partial resumption of seawater supply within 30 minutes via back-up seawater supply from GTC circuit of SWPH-1 (provided that power supply to GTC circuit of SWPH-1 is not affected)</p> <p><u>SWPH-5 circuit</u></p> <p>Partial resumption of seawater supply within 60 minutes via alterative power feed from 1500kVA mobile generator (provided that the 1500kVA mobile generator is stationed outside SWPH-5)</p>
Seawater Supply Main Failure	Interruption of seawater supply due to bursting of one of the seawater supply mains	<p><u>All circuits except ATCC circuit of SWPH-1</u></p> <p>Isolate the defective seawater supply main and partial resumption of seawater supply via the other healthy main (exact time depends on the time taken to locate and isolate the defective main)</p> <p><u>ATCC circuit of SWPH-1</u></p> <p>Co-ordinate with CAD to switch their cooling system from seawater cool to air cool</p>

C. Contingency Planning

In accordance with the Contingency Procedures for Seawater Supply System, the indoor temperature of the affected tenants / areas shall be kept at 26°C during the suspension of partial seawater supply.

D. Contingency Procedures

For the handling of incidents of seawater supply system, Seawater System Management Plan shall be referred. The purpose of this plan is to define the responsibilities of the concerned parties and to describe the activities associated with the handling of incidents related to seawater supply system.

E. Cyber Security

System cyber security threat level based on the following risk rating:

Threat Level	System
Low	System uses no IT-based systems.
Medium	System uses some closed data-collection and/or alarm systems based on sensors or IoT devices.
High	System uses integrated SCADA systems, cloud-based data collections systems, or IP-based monitoring and control systems.

- Seawater Pumping System – Threat Level: Medium

Rationale for threat level

The seawater pumping system is being controlled and monitored by the Central Control Consoles and being monitored by the Airfield SCADA System. The Central Control Consoles/ Airfield SCADA Systems are a data-collection system and alarm systems based on sensors, so as to monitor the status of the seawater pumping system in a closed and controlled network.

Mitigation actions taken

The Unidirectional Security Gateway of the seawater pumping system creates a fully functional replica server in the Central Control Consoles/ Airfield SCADA System. It allows 100% visibility of the seawater pumping system CS network while providing 100% protection from IT-based threats.

In case of suspected cyber-attack, Risk & Cybersecurity Team of ITD shall be informed for further investigation.

F. Interface with Other Operational Organizations during Contingency

1. Relevant Maintenance Contractors
2. AA IAC
3. AA TSI

-
- 4. AA TOD
 - 5. AA LD
 - 6. AA Aviation Logistics Department

G. Drill Plan

Drill by Maintenance Contractors and TSI on handling of incidents of Seawater Supply System is conducted on annual basis.

Part II – Chiller Systems

A. System Description

1.0 Terminal 1

- 1.1 The existing chiller system of Terminal 1 comprises 6 nos. seawater cooled HV chillers, 1 no. of LV chiller relocated from Terminal 2 and another 1 no. of newly installed LV chiller for the recently operating Terminal T1 Annex. Each chiller is provided with a dedicated primary chilled water pump.
- 1.2 The chiller system at GTC, where there are 3 nos. of LV chillers, is integrated with Terminal 1 chilled water circuit with mutual support of chilled water supplies in response to dynamic cooling demands of the buildings.
- 1.3 The chilled water distribution in Terminal 1 is split into eight groups of secondary chilled water pumps with each group comprising a standby pump, namely,
 - i Processing Terminal North (PTN) including T1A and HKIA Community Building (HKIACmu)
 - ii Processing Terminal South (PTS)
 - iii East Hall North (EHN)
 - iv East Hall South (EHS)
 - v East Hall Extension (EH Extension)
 - vi Sky Bridge
 - vii Central Concourse (CC)/ West Hall (WH)/ Southwest Concourse (SWC)/ Northwest Concourse (NWC)
 - viii Ground Transportation Centre (GTC)
- 1.4 The seawater cooling supply to the Terminal 1 chiller plant is provided by two seawater pipes feeding from nearby seawater pump house (SWPH-1). Each pipe is capable of handling the maximum seawater flow for the operation of three HV chillers.
- 1.5 The Mechanical Building Management System (MBMS) utilizes a dual redundant server system for Terminal 1 to perform centralized control and user interfacing of the mechanical systems including the chiller system, seawater cooling system, and the Mechanical Ventilation and Air-Conditioning (MVAC) system such as fan coil units, air handling units, fans, etc.

- 1.6 The power supply for the chillers are decentralized into 3 sources, with each pair of HV chillers fed from switch stations PA, PB and PH respectively.
- 1.7 The power supply for the secondary chilled water pumps are decentralized with each pump set serving the same secondary chilled water circuit fed by different transformers and LV switchboards fed by different 11kV cable ring feeders.
- 1.8 The current maintenance contractor for the Terminal 1 chiller plant is Carrier Hong Kong Limited (Carrier) whilst Honeywell is responsible for maintaining the MBMS.

2.0 Terminal 2

- 2.1 T2 Chiller Plant was completely de-commissioned on 18 March 2020 to facilitate the T2 modification project for 3RS operation.

3.0 T1 Satellite Concourse (T1S)

- 3.1 The existing T1S chiller plant comprises 4 nos. of air-cooled LV chillers with 5 nos. of chilled water pumps.
- 3.2 The MBMS utilizes a dual redundant server for T1S to perform centralized control and user interfacing of the mechanical systems including the chiller system and the MVAC system such as fan coil units, air handling units, fans, etc.
- 3.3 The power supply for the chillers and chilled water pumps are decentralized to ensure no single point of failure.
- 3.4 The maintenance contractor for the chiller plant is Carrier whilst Honeywell is responsible for maintaining the MBMS.

4.0 SkyPier Terminal

- 4.1 The SkyPier Terminal consists of two separate chiller plants. One chiller plant comprises 3 nos. of air-cooled LV chillers with 4 nos. of chilled water pumps. The other chiller plant comprises 3 nos. of water-cooled LV chillers with 4 nos. of chilled water pumps, and 3 nos. of cooling towers with 4 nos. of condenser water pumps for chiller cooling.
- 4.2 The Building Management System (BMS) utilizes a dual redundant server for SkyPier Terminal to perform centralized control and user interfacing of the mechanical systems including the chiller system and the mechanical ventilation and air-conditioning system such as fan coil units, air handling units, fans, etc.
- 4.3 The power supply for the chillers and chilled water pumps are decentralized to ensure no single point of failure.
- 4.4 The maintenance contractor for the chiller plant and BMS is Carrier and Johnson Controls respectively.

5.0 T1 Midfield Concourse (T1M)

- 5.1 The existing T1M chiller plant comprises 5 nos. of water-cooled LV chillers with 6 nos. of chilled water pumps, and 5 nos. of cooling towers with 6 nos. of condenser water pumps for chiller cooling.
- 5.2 The MBMS utilizes a dual redundant server for T1M to perform centralized control and user interfacing of the mechanical systems including the chiller system, the mechanical ventilation and air-conditioning system such as fan coil units, air handling units, fans, etc.
- 5.3 Configuration of the power supply for the chillers and chilled water pumps is decentralized to ensure no single point of failure.
- 5.4 The maintenance contractor for the chiller plant is Carrier whilst Honeywell is responsible for maintaining the MBMS.

B. Contingency Planning

In accordance with the user's requirements for the Chiller Systems, the indoor temperature of the affected tenants / areas shall be kept at 26°C during system fault.

System	Loss of single component	Rectifying action	Impact
Seawater system (For Chiller System at Terminal 1)	Seawater supply main from seawater pump house	There are 2 supply mains. Isolate the seawater main which is faulty and rely on second supply main for providing seawater cooling for 3 nos. HV chillers (50% of total HV chiller capacity).	Momentary interruption
Chiller System	Primary chilled water pump	Manually start another chiller-pump set	Momentary interruption
	Chiller	Manually start another chiller	Momentary interruption
	Secondary chilled water pump (For Chiller System at Terminal 1)	Automatically start standby secondary chilled water pump	Momentary interruption
	Leakage from chilled water supply pipes feeding the secondary chilled	Isolate the faulty chilled water pipe and rectify the	Will lose chilled water supply to the affected zone

System	Loss of single component	Rectifying action	Impact
	water pumps (For Chiller System at Terminal 1)	leakage temporarily	for certain period of time
	Leakage from chilled water supply pipes serving air handling units / fan coil units	Isolate the faulty chilled water pipe and rectify the leakage temporarily	Will lose chilled water supply to the affected zone for certain period of time
Compressed air system for chillers at Terminal 1	Air compressor	Start standby air compressor automatically	Momentary interruption
Power supply for Chiller System at Terminal 1	Failure of one CLP 11kV supply to either HV switch station, PA, PH or PB feeding the chiller	The 11kV generators backup the switch station will be started automatically and feed power to the HV switchboard to resume power supply	Only one third of chillers will be affected. The affected chiller can resume operation after the generators have started up and supply power to the switch station
	Failure of one chiller HV MCC	The faulty MCC shall be rectified after fault clearance	The affected chiller operation will be interrupted but standby chiller can back up the system
	Failure of one 11kV/380V transformer serving the chilled water pumps	The transformer coupled with another transformer feeding the same switchboard and the dual supplies are isolated by a sectional ACB. Manual switching of power supply from the failed transformer to the coupled transformer is required.	The affected chilled water pumps can resume operation when the power supply switching is completed. Only one group of chilled water pumps will be affected. 3 chillers can still maintain operation.
	Failure of one LV switchboard feeding the chilled water pumps	The switchboard faulty part shall be isolated.	The affected chilled water pumps may not be resumed if faulty

System	Loss of single component	Rectifying action	Impact
		Power supply to the affected chilled water pumps may need to be diverted to other switchboards	part cannot be rectified. 3 chillers can still maintain operation.
Power supply	Failure of one LV MCC connecting to the chilled water pumps	The faulty MCC shall be rectified after fault clearance	The affected chilled water pump cannot operate. It will affect one chiller operation but the secondary chilled water pump can be backed up by standby pump fed from different power source.
MBMS/BMS	Failure to perform control and monitoring of the mechanical ventilation and air-conditioning system	Manually controlled the MVAC system	Design temperature settings cannot be achieved should the system's function cannot be resumed.

C. Cyber Security

The system cyber security threat level is based on the following risk rating:

Threat Level	System
Low	System has no IT-based systems.
Medium	System has some closed data-collection and/or alarm systems based on sensors or IoT devices.
High	System has integrated SCADA systems, cloud-based data collections systems, or IP-based monitoring and control systems.

- Chiller Systems – Threat Level: Medium

Rationale for the threat level

The Chiller Systems are either controlled by MBMS or BMS (As mentioned in Section 3.1). The MBMS/ BMS is a closed data-collection system and alarm systems based on sensors, so as to monitor the status of the chiller systems in a closed and controlled network.

Mitigation actions

Access to the locations of system workstations are restricted. Only authorized person is allowed to control the system.

In addition, Unidirectional Security Gateway has been applied for T1 chiller system which acts as a security gateway to control the data flow in single direction and prohibit access or control from external parties, allowing visibility of the chiller system's connected services network while providing 100% protection from IT-based threats.

In case of suspected cyber-attack, Risk & Cybersecurity Team of ITD shall be informed for further investigation.

D. Interface with Other Operational Organizations during Contingency

1. CLPe (maintenance contractor of electrical services)
2. Shinryo (maintenance contractor of mechanical services)
3. Carrier (maintenance contractor of chillers systems)
4. Honeywell (maintenance contractor of MBMS)
5. Johnson Controls (maintenance contractor of BMS)
6. AA IAC
7. AA FRTMO

E. Drill Plan

Drills by Maintenance Contractors and TSI on incident handling of the Chiller Systems are conducted on an annual basis.

Part III – Mechanical Building Management System (MBMS)

A. System Description

1.0 Introduction

- 1.1 MBMS are installed in Terminal 1, T1S, GTC and T1M to facilitate control and monitor operation of Mechanical Services while BMS serves the Mechanical Services in SkyPier Terminal.
- 1.2 The systems are equipped with servers, workstations and direct digital controllers (DDC). The servers are of redundant configuration.
- 1.3 All servers are located inside communication rooms and workstations are installed in IAC, Back-up IAC and FRTMO for remote operations.
- 1.4 DDC is installed inside plant rooms directly connected to mechanical equipment.

B. Physical System Risk

Risk	Description	Mitigation
Server Failure	Loss of communication between workstation and server due to server failure	<ul style="list-style-type: none"> • Servers are of redundant configuration • Auto failover to backup server once the duty server fails
Fire	Damage of servers due to fire	<ul style="list-style-type: none"> • Servers are located inside communication rooms protected by gas flooding system or dry pipe sprinkler system
Water	Damage of server due to ingress of water	<ul style="list-style-type: none"> • Servers are located inside cabinet in communication rooms protected by gas flooding system or dry pipe sprinkler system

C. Contingency Planning for MBMS Mal-functions

In accordance with the requirements for MBMS, the management platform for mechanical service and equipment is to ensure they are fully available for public usage, twenty four (24) hours a day and all year round.

MBMS Centralized Equipment	Loss of single component	Rectifying action	Impact
Server	Duty Server Failure	The hot-standby server automatically take up the duty server role.	Momentary interruption during failure-over.

Network Switch	Network switch Failure	The related network connection switch to another network switch.	Remote control and monitor is interrupted. The stand-alone controller and loop server can maintain the mechanical services and equipment in normal operation.
Controller	Controller Failure	The related MVAC equipment switch to local mode.	Remote control and monitor is interrupted.

D Cyber Security

System cyber security threat level based on the following risk rating:

Threat Level	System
Low	System uses no IT-based systems.
Medium	System uses some closed data-collection and/or alarm systems based on sensors or IoT devices.
High	System uses integrated SCADA systems, cloud-based data collections systems, or IP-based monitoring and control systems.

- Mechanical Building Management System – Threat Level: High

Rationale for threat level

System is used IP-based for network connection.

Mitigation actions taken

Access to the locations of system workstations are restricted. Only authorized person is allowed to control the system.

The system makes use of the corporate AA-net for the IP-based monitoring where the cyber security is safeguarded by ITD.

In case of suspected cyber-attack, Risk & Cybersecurity Team of ITD shall be informed for further investigation.

E. Interface with Other Operational Organizations during Contingency

1. CLPe (maintenance contractor of electrical services)
2. Shinryo (maintenance contractor of mechanical services)
3. Carrier (maintenance contractor of chillers systems)
4. Honeywell (maintenance contractor of MBMS)
5. Johnson Controls (maintenance contractor of BMS)
6. AA IAC
7. AA FRTMO

F. Drill Plan

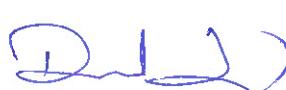
Drills by Maintenance Contractors and TSI on incident handling of the MBMS are conducted in conjunction with Chiller Systems on an annual basis.

End of BCP – E5

Business Continuity Manual

Business Continuity Plan: E6

Trunked Mobile Radio

		Signature	Revision	Effective Date
Updated By	Senior Manager, Airfield & Electronic Systems, TSS	 Leslie Lee		
Reviewed By	Assistant General Manager BCP, SSBC	 Emily Chu	34	Nov 2023
Approved By	General Manager SSBC	 David Jea		

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<u>ITEM</u>	<u>SUBJECT MATTER</u>	
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B	Contingency Procedures for Trunked Mobile Radio	E6.6
C	Cyber Security	E6.7

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A. System Description

1.0 Introduction

- 1.1 The Trunked Mobile Radio (TMR) System consists of 5 base stations located at CR23 (both site 1 and site 4) of Terminal 1, CR24 (site 2) of Terminal 1, CR227 (site 5) of T1 Midfield Concourse (T1M) and Level T1 of Air Traffic Control Tower (ATC) (site 3). Each base station has a main controller and a standby controller.
- 1.2 In case either main or standby controller failure, the rest of controller can be automatically changeover to maintain the services with no service impact to TMR users.
- 1.3 In case both main and standby controllers of site 1 base station at CR23 failure, system will raise alarm to maintenance team. CR23 base station will be switched to redundancy base station (site 4) manually to maintain the services.

In case both main and standby controllers of site 2 base station at CR24 failure, system will raise alarm to maintenance team. Site 2 antenna network will be connected to site 1 optical amplifier signal at CR24 manually to maintain the services.

In case both main and standby controllers of site 3 base station at ATC failure, system will raise alarm to maintenance team. Manual switch off the site 3 base station at ATC to force those TMR handsets connect to site 1 optical amplifier signal automatically to maintain the services.

In case both main and standby controllers of site 5 base station at CR227 failure, system will raise alarm to maintenance team. Manual switch off the site 5 base station at T1M CR227 to force those TMR handsets connect to site 1 optical amplifier signal automatically to maintain the services.

B. Contingency Procedures for Trunked Mobile Radio

- 1.0 Criteria for activating contingency plan
 - 1.1 In case of one or more than one base-station collapse.
 - 1.2 No inter-site TMR call can be made.

- 2.0 Services and manpower involved
 - 2.1 Qualified RF electronic engineers and technicians from AA maintenance team
 - 2.2 AA's Superintendent, FRT (Electronics)
 - 2.3 Motorola TETRA Specialist

- 3.0 Contingency Procedures
 - 3.1 When irregularities are detected according to the forehead criteria
 - i. Any person affected by TMR service interruption should immediately report the fault to FRT and list out the affected area.
 - ii. If FRT detects the respective situation, they should report to maintenance team, System Owner and IAC.

 - 3.2 Follow up procedure for recovery estimation
 - i. FRT shall identify and record the location of TMR failure and possible affected area.
 - ii. FRT should notify relevant maintenance contractor and diagnose the reason of TMR system failure. In addition, FRT and maintenance contractor of TMR system shall estimate the recovery time.

 - 3.3 When TMR system can be resumed within acceptable time
 - i. FRT shall report to maintenance team, System Owner and IAC that the TMR system will be resumed within acceptable time.
 - ii. FRT shall report to maintenance team, System Owner and IAC again after resumption of TMR system.

 - 3.4 When TMR system cannot be resumed within acceptable time
 - i. FRT shall report to maintenance team, System Owner and IAC of the situation.
 - ii. Maintenance contractor and FRT shall seek alternative methods to provide the TMR communication service as far as possible.

Urgent repair on TMR system shall also be organized concurrently.

- iii. IAC shall notify TMR users to use the TMR direct mode, Public Switched Telephone Network and Mobile Phone Network as an alternative means of communication.
- iv. FRT shall closely communicate with maintenance team, System Owner and IAC, and update the latest situation until TMR service resumes.

4.0 Interface with other operational organizations during contingency

4.1 System Owner

4.2 IAC

4.3 Maintenance team

5.0 Data preservation procedures

TMR system data is archived in TMR servers. FRT and Maintenance Contractor shall retrieve the relevant logs and record the fault handling actions to maintenance team for the sake of detailed investigation and follow up.

C. Cyber Security

System cyber security threat level based on the following risk rating:

Threat Level	System
Low	System uses no IT-based systems.
Medium	System uses some closed data-collection and/or alarm systems based on sensors or IoT devices.
High	System uses integrated SCADA systems, cloud-based data collections systems, or IP-based monitoring and control systems.

- Trunked Mobile Radio – Threat Level: Medium

Rationale for threat level

The system devices such as base stations, amplifiers were non-computer base equipment.

Mitigation actions taken

IT015 policy are general implemented on computer base devices.

In case of suspected cyber-attack, Risk & Cybersecurity Team of ITD shall be informed for further investigation.

End of BCP – E6

Business Continuity Manual

Business Continuity Plan: E7

Water & Sewage Systems

		Signature	Revision	Effective Date
Updated By	Senior Manager M&U / C&I, TSI	 Joseph Lam		
Reviewed By	Assistant General Manager BCP, SSBC	 Louis Hui	34	Nov 2023
Approved By	General Manager SSBC	 Emily Chu		

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A. System Description

1.0 Water Systems

- 1.1 There are seventeen water supply zones in HKIA.
 1. Nine water supply zones are in Terminal 1; and
 2. One single water supply zone in each of the following buildings:
 - a. HKIA Tower;
 - b. HKIA Tower 2;
 - c. HKIA Commercial Building;
 - d. HKIA Community Building;
 - e. T1 Satellite Concourse;
 - f. Sky Bridge
 - g. SkyPier Terminal; and
 - h. T1 Midfield Concourse.
- 1.2 Our water supply systems include potable, flushing and cleansing water supply.
- 1.3 The main potable and cleansing supply source is from Water Supplies Department (WSD);
 1. Dual feed from the distribution mains of Tung Chung Fresh Water Service Reservoir (TCFWSR) through 600mm diameter mains which is provided by WSD via the North Lantau Expressway Bridge and the Second Sea Channel Bridge.
 2. WSD feeds their potable water supplies to the boundary of HKIA and distributes into storage tanks inside our buildings via underground distribution mains.
- 1.4 The main flushing water supply sources are from Sea Water Pump Houses SWPH-1, SWPH-1b and SWPH-5 and distribute into storage tanks inside our buildings via underground distribution mains.
- 1.5 All types of water supplies distribute to all levels of each building from water storage tanks via booster pumps.

2.0 Sewage Systems

- 2.1 Due to the nature of large and relatively flat site, sewage collected from the various buildings and the aprons within the HKIA is transferred via a network of gravity mains and pumped / rising mains to a Drainage Services Department's (DSD) manhole at Tung Chung.
- 2.2 To facilitate the transfer, a total of 12 numbers of major sewage pumping stations (2 numbers are combined Sewage & Grey Water Pumping Stations) are installed.

- 2.3 Most of the rising mains are connected directly to an adjacent manhole with a short distance to provide flushing of the next downstream gravity catchment.
1. Gravity sewers range in size from 150mm diameter connections to a 1,050 mm diameter main sewer.
 2. Rising mains range in size from 100mm diameter to 800mm diameter for the transfer main across the North Lantau Expressway Bridge to Lantau.
- 2.4 The sewage network is further sub-divided into two sub-systems, being the foul sewerage system and the grey water system.
- 2.5 The grey water system collects the grey water from:
1. Wash water from the aircraft wash at the apron
 2. Condensate drains, kitchen wastes, wash basins from Terminal 1 and T1 Midfield Concourse
 3. Kitchen waste water from aircraft caterers
- 2.6 Grey water that has been treated at the Wastewater Treatment Plant for irrigation purpose and excessive treated grey water will be diverted to the foul sewerage system for ultimate discharge to the DSD manhole at Tung Chung.
- 2.7 Power supply to the major sewage pump stations are fed from the essential boards; each of them is also equipped with a socket cubicle for ready connection to the mobile generator as necessary.
- 2.8 Each of the major sewage pump stations is equipped with duty and standby pumps for the effective transfer of sewage.
- 2.9 In case of major breakdown in the sewage system that caused the continuous built up of collected sewage within the sewage system, a suction tanker will be deployed for emergency use.

B. Physical System Risks

Risks for Water Systems	Description	Mitigation
1. Failure of potable water feeds from Water Supplies Department	Interruption of potable water supply	Inform Water Supplies Department for arrangement of mobile water tanks for transporting potable water from nearest available water point.
2. Failure of underground potable or flushing water distribution main	Interruption of potable or flushing water supply	Inform Water Supplies Department for arrangement of mobile water tanks for transporting potable water from nearest available water point.

3. Power Supply Failure from China Light and Power Co. Ltd (CLP)	Interruption of water supply to all levels of affected building	Normal resumption within 90 seconds upon the operation of the Emergency Generator to fully start up.
4. Failure of duty booster pumps	Interruption of water supply to all levels of affected zone	A standby pump will be started up within fifteen minutes.
5. Failure of booster pump system	Interruption of water supply to all levels of affected zone	Resumption time depends on the severity of the failure. For minor system faults, it will be rectified / repaired within thirty minutes. For major failure, inform Water Supplies Department for arrangement of mobile water tanks for transporting potable water from nearest available water point.
6. Temporary Power Supply Failure	Interruption of sewage transfer due to minor suspension of power (< 0.2 sec with reasonable remaining power on all phases)	Automatic resumption of the operation upon power resumption
7. Power Supply Failure (i.e. failure of primary power supply, back-up generator or the power supply cable)	Interruption of sewage transfer due to suspension of power (more than 0.2 second)	Normal resumption within 30 seconds upon the operation of the generator to back up the upstream essential board. In case of simultaneous failure of the primary power supply and back-up generator or the failure of the power supply cable, resumption can be made within 90 minutes upon the deployment of the mobile generator and connection
8. Failure of duty and standby sewage pumps	Interruption of sewage transfer due to suspension of duty and standby sewage pumps	Resumption time depends on the location of the failure. Operation impacts will be minimized by means of: a) use mobile pumps and tankers; b) swap the defective pumps with compatible standby pumps from other sewage pump stations (e.g. sewage pumps at SPS 12F are similar to SPS 12G and vice versa)
9. Failure of Sewage Pipes	Interruption of sewage transfer due to suspension of pipe work	Resumption time depends on the location of the failure. Minimize the overflow into the storm drains by deploying tankers and / or temporary pumps to bypass the defective pipe section and transfer the sewage to downstream manhole. Close the penstock(s) at the associated outfall(s) to prevent spillage of contaminated storm water into the nearby sea. Inject chemical where possible onto the storm water system to reduce the bacterial growth.

C. Contingency Planning

In accordance with the Contingency Procedures for Sewage System, the volume of spillage of contaminated waste water into the nearby sea shall be minimized as far as possible.

D. Contingency Procedures

FRT Handbook shall be referred for the handling of incidents on the water system and sewage system, as well as the responsibilities of the concerned parties and the activities associated with the handling of incidents related to water and sewage systems.

E. Cyber Security

System cyber security threat level based on the following risk rating:

Threat Level	System
Low	System uses no IT-based systems.
Medium	System uses some closed data-collection and/or alarm systems based on sensors or IoT devices.
High	System uses integrated SCADA systems, cloud-based data collections systems, or IP-based monitoring and control systems.

- Water Systems – Threat Level: Low

Rationale for threat level

Although the real-time condition data is uploaded to the cloud, this is an isolated system with no control function. The data collected is not critical and has no personal data.

Mitigation actions taken

In case of suspected cyber attack, Risk & Cybersecurity Team of ITD shall be informed for further investigation.

- Sewage Pumping Systems – Threat Level: Low

Rationale for threat level

The sewage pumping system is being controlled and monitored by the local control consoles and being monitored by the Airfield SCADA System. The Central Control Consoles/Airfield SCADA System are a data-collection system and alarm system based on sensors, so as to monitor the status of the general pumping systems in a closed and controlled network.

Mitigation actions taken

The Unidirectional Security Gateway of the general pumping system creates a fully functional replica server in the local control consoles/ Airfield SCADA System. It allows 100% visibility of the general pumping system CS network while providing 100% protection from IT-based threats.

In case of suspected cyber attack, Risk & Cybersecurity Team of ITD shall be informed for further investigation.

F. Interface with Other Operational Organizations during Contingency

1. Relevant Maintenance Contractors
2. AA IAC
3. AA TSI
4. EPD
5. DSD
6. WSD

G. Drill Plan

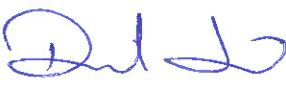
Drills by Maintenance Contractors and TSI on handling of incidents of water and sewage systems are conducted on an annual basis.

End of BCP - E7

Business Continuity Manual

Business Continuity Plan: F1

Access Control System

		Signature	Revision	Effective Date
Updated By	Assistant General Manager Airport Security, SSBC	 P.P. Debbie Poon		
Reviewed By	Assistant General Manager BCP, SSBC	 Emily Chu	33	Aug 2023
Approved By	General Manager SSBC	 David Jea		

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B Failure of Headend Server

1.0 Failure Impacts

1. Scenario 1 – Failure of the Primary Headend Server Only
 - No service impact.
 - a. AVSECO-IAC Action:
 - i. No action is required.
 - b. TSS Action:
 - i. AA-FRT will check on the central system, and confirm a successful changeover to the Secondary Headend Server;
 - ii. AA-FRT will check and confirm the ACS system's functionality;
 - iii. AA-FRT will coordinate with AVSECO-IAC on the operation of the ACS system and confirm it is operating normally;
 - iv. AA-FRT will update the AA-ADM on the ACS system's status; and
 - v. AA-Second Line Maintenance team will trouble shoot, follow up on the ACS system's fault, and ensure the system's return to normal.
2. Scenario 2 – Failure of Both the Primary and Secondary Headend Servers
 - Operations of ACS workstations interrupted.
 - Alarm monitoring interrupted.
 - Permit productions interrupted.
 - No service impact to ACS devices, as they work locally.
 - a. AVSECO-IAC Action:
 - i. Immediately inform: AED Ops I; AED Ops II; SM Ops I-AC; SM Ops II-AS; DSM; DSC; DDSC; and ADSC;
 - ii. Alert AA-ADM, AA-IAC, AA-SSBC, and inform the AA-FRT for the Servers urgent repairs;
 - iii. Inform APCR, C&ED, ImmD and ASU;
 - iv. Alert Command Posts of: TAD; AAD; BSD; PSD; and TRA to enhance patrols of Terminal 1, Sky Bridge, T1S, T1M, SkyPier Terminal, and the apron areas;
 - v. Instruct TAD staff to check the Landside/Airside ACS doors, for urgent ACS door controls prepare to use Special Access Control Cards and, when conducting permit checks, to pay attention to Card-Reader images / visual checks;
 - vi. Use CCTVs to monitor affected areas;
 - vii. Make log records / OB entries for the incidents; and
 - viii. Prepare Incident Reports for both the HKIA and IAC SITREPS.

- b. TSS Action:
- i. AA-FRT will alert and periodically update the AA-ADM, AA-SSBC and AVSECO-IAC on the ACS system's status;
 - ii. AA-FRT will coordinate with AVSECO-IAC for any support;
 - iii. AA-FRT, with the AA Second Line Maintenance team, will trouble shoot and follow up on the ACS system's fault until the system resumes normal operation; and
 - iv. For remote support, if required, the AA-Second Line Maintenance team will coordinate with the CEM.

C Failure of Controller

1.0 Failure Impacts

1. Scenario 1 – Failure of the Server-Based Controller

- No service impact, if the primary controller is down.
 - If both primary and secondary controllers are down, the ACS devices that are under the control of the corresponding controller cannot transmit alarms to the ACS workstations.
- a. AVSECO-IAC Action:
- If the primary controller only is down, no action is required.
 - If both the primary and secondary Server-Based Controllers are down:
 - i. Immediately inform: AED Ops I; AED Ops II; SM Ops I-AC; SM Ops II-AS; DSM; DSC; DDSC; and ADSC;
 - ii. Alert AA-ADM, AA-IAC, AA-SSBC, and inform the AA-FRT for the Controllers urgent repairs;
 - iii. Inform APCR, C&ED, ImmD and ASU;
 - iv. Alert the Command Posts of: TAD; AAD; BSD; PSD; and TRA to enhance patrols of Terminal 1, Sky Bridge, T1S, T1M, SkyPier Terminal, and the apron areas;
 - v. Instruct TAD staff, for urgent ACS door controls, to prepare to use Special Access Control Cards and, when conducting permit checks, to pay attention to Card-Reader images / visual checks;
 - vi. Use CCTVs to monitor affected areas;
 - vii. Make log records / OB entries for the incidents; and
 - viii. Prepare Incident Reports for both the HKIA and IAC SITREPs.
- b. TSS Action:
- i. AA-FRT will check on the system and identify the impact on field devices;
 - ii. AA-FRT will inform AVSECO-IAC of the impact on field devices, for the on-site support arrangement by AVSECO (if required);
 - iii. AA-FRT, with the AA Second Line Maintenance team, will trouble shoot, and follow up on the ACS system's fault until the system resumes normal operation; and

- iv. AA-Second Line Maintenance team will coordinate with the AA-FRT for a follow up on the system level configuration, if required.
2. Scenario 2 – Failure of Appliance-Based Controller
- ACS devices which are under the control of the corresponding controller cannot propagate alarms to the ACS workstations.
- a. AVSECO-IAC Action:
 - i. Alert the Command Posts of TAD, AAD, BSD, PSD, and TRA to enhance patrols of Terminal 1, Sky Bridge, T1S, T1M, SkyPier Terminal, and the apron areas;
 - ii. Instruct TAD staff, for urgent ACS door controls, to prepare to use Special Access Control Cards, and, when conducting permit checks, to pay attention to Card-Reader images / visual checks
 - iii. Use CCTVs to monitor affected areas; and
 - iv. Instruct TAD staff to conduct on-site alarm functioning tests with the ACS Controller.
 - b. TSS Action:
 - i. AA-FRT will check on the system and identify the impact on field devices;
 - ii. AA-FRT will inform AVSECO-IAC of the impact on field devices, for on-site support arrangement by AVSECO, if required;
 - iii. AA-FRT, with the AA Second Line Maintenance team, will trouble shoot, follow up on the ACS system's fault until the system resumes normal; and
 - iv. AA-FRT will coordinate with the AA-Second Line Maintenance team to follow up on the system level configuration, if required.

D No Response on the ACS Workstation

- 1.0 Failure Impacts:
- Operations of the affected ACS workstation may be interrupted;
 - Alarm monitoring via the affected workstations may be interrupted;
 - Permit production via the affected workstations may be interrupted; and
 - No service impact to the central system or ACS devices, as they work locally.
- a. AVSECO-IAC Action:
 - If both primary and secondary Server-Based Controllers are down:
 - i. Immediately inform: AED Ops I; AED Ops II; SM Ops I-AC; SM Ops II-AS; DSM; DSC; DDSC; and ADSC;
 - ii. Alert the AA-ADM, AA-IAC, AA-SSBC, and inform AA-FRT for the Servers urgent repairs;
 - iii. Inform APCR, C&ED, ImmD and ASU;

- iv. Alert Command Posts of TAD, AAD, BSD, PSD and TRA to enhance patrols of Terminal 1, Sky Bridge, T1S, T1M, SkyPier Terminal, and the apron areas;
 - v. Instruct TAD staff, for urgent ACS door controls, to prepare to use Special Access Control Cards and, when conducting permit checks, to pay attention to Card-Reader images / visual checks;
 - vi. Instruct TAD / AAD / TRA staff to conduct manual / visual permit checks;
 - vii. Use CCTVs to monitor affected areas;
 - viii. Make log records / OB entries for the incidents;
 - ix. Prepare Incident Reports for both the HKIA and IAC SITREPs; and
 - x. Instruct TAD staff to conduct on-site alarm function tests.
- b. TSS Action:
 - i. AA-FRT will check and confirm the ACS central system is operating normally;
 - ii. AA-FRT, with the AA Second Line Maintenance team will trouble shoot, follow up on the ACS system's workstation fault until the system resumes normal; and
 - iii. AA-FRT will coordinate with AA-Second Line Maintenance team for a follow up on the system level configuration, if required.

E Malfunction of Card Reader (staff access control point)

1.0 Failure Impacts

- Card reader cannot properly read the ARA permit.
 - Access rights of the ACS doors cannot be granted to the ARA permit holder.
 - ACS doors cannot be controlled remotely by the ACS workstations.
 - ACS reader cannot propagate the alarms to the ACS workstations.
- a. AVSECO-IAC Action:
 - If both primary and secondary Server-Based Controllers are down:
 - i. Immediately inform: AED Ops I; AED Ops II; SM Ops I-AC; SM Ops II-AS; DSM; DSC; DDSC; and ADSC;
 - ii. Report to AA-FRT for repairs;
 - iii. Inform APCR, C&ED, ImmD and ASU;
 - iv. For the urgent control of ACS doors, instruct TAD staff to prepare to use Special Access Control Cards, and, when conducting permit checks, to pay attention to Card-Reader images / visual checks;
 - v. Instruct TAD / AAD / TRA staff to use the portable card-readers and, when conducting manual / visual permit checks, pay attention to Card-Reader images;
 - vi. Use CCTVs to monitor affected areas;
 - vii. Make log records / OB entries for the incidents; and
 - viii. Prepare Incident Reports for both the HKIA and IAC SITREPs.

- b. TSS Action:
- i. AA-FRT, with AA Second Line Maintenance team, will trouble shoot, and follow up on the ACS card reader fault(s), with and any hardware replacement, ensuring the system resumes normal operation.

F Malfunction of Permit Production System in Permit office

1.0 Failure Impacts

1. Scenario 1 – Server Issue
 - Refer to Section B
2. Scenario 2 – Workstation Issue
 - Refer to Section D
3. Scenario 3 – Network Issue
 - Refer to Section H
4. Scenario 4 – Power Issue (Interruption exceeding 4 hours)
 - Refer to Section G

G Prolonged Power Interruption Exceeding 4 hours

1.0 Failure Impacts

1. Scenario 1 – Server Level
 - No impact, assuming backup power supply is provided. Otherwise please refer to Section B.
2. Scenario 2 – Workstation Level
 - ACS workstations become unusable. Please refer to Section D.
3. Scenario 3 – Network Level
 - If the networking equipment is installed at communication rooms, no impact, assuming backup power supply is provided.
 - If otherwise, the networking equipment becomes unusable. Please refer to Section H.
4. Scenario 4 – Local Device Level
 - Local devices, including readers, sounder, door locks etc. will become unusable.
 - Card reader cannot read the ARA permit.
 - Access rights to the ACS doors cannot be granted to the ARA permit holder.

- ACS doors cannot be controlled remotely by the ACS workstations.
 - ACS doors will unlock.
- a. AVSECO-IAC Action:
- If both primary and secondary Server-Based Controllers are down:
 - i. Immediately inform: AED Ops I; AED Ops II; SM Ops I-AC; SM Ops II-AS; DSM; DSC; DDSC; and ADSC;
 - ii. Alert the Command Posts of TAD, AAD, BSD, PSD & TRA to enhance patrols of Terminal 1, Sky Bridge, T1S, T1M, SkyPier Terminal, and the apron areas;
 - iii. For the urgent control of the ACS doors, instruct TAD staff to prepare to use Special Access Control Cards and, when conducting permit checks, to pay attention to the Card-Reader images / visual checks;
 - iv. Alert AA-ADM, AA-IAC, AA-SSBC, and inform the AA-FRT to conduct urgent repairs;
 - v. Inform APCR, C&ED, ImmD and ASU;
 - vi. Use CCTVs to monitor the affected areas;
 - vii. Make log records / OB entries for the incidents;
 - viii. Prepare Incident Reports for both the HKIA and IAC SITREPs; and
 - ix. Instruct TAD staff to place additional guard(s) to monitor the unlocked ACS doors.
- b. TSS Action:
- i. AA-FRT will trouble shoot, if necessary, arrange the provision of temporary power, and ensure the devices resume normal operation.

H Failure of ACS Network

1.0 Failure Impacts

1. Scenario 1 - One uplink failure of an access switch

- No service impact.
- a. AVSECO-IAC Action:
- i. No action is required.
- b. IT Action:
- i. To restart the failed uplink.

2. Scenario 2 - One access switch failure

- Devices connected to the failed access switch fail to connect.
- Alarms generated by some local devices cannot be transmitted to the ACS workstations.

- Some ACS doors cannot be controlled remotely by the ACS workstations.
- a. AVSECO-IAC Action:
 - i. Immediately inform: AED Ops I; AED Ops II; SM Ops I-AC; SM Ops II-AS; DSM; DSC; DDSC; and ADSC;
 - ii. Alert the Command Posts of TAD, AAD, BSD, PSD & TRA to enhance patrols of Terminal 1, Sky Bridge, T1S, T1M, SkyPier Terminal, and the apron areas;
 - iii. For the urgent control of the ACS doors, instruct TAD staff to prepare to use Special Access Control Cards and, when conducting permit checks, to pay attention to the Card-Reader images / visual checks;
 - iv. Alert AA-ADM, AA-IAC, AA-SSBC, and inform the AA-FRT to conduct urgent repairs;
 - v. Inform APCR, C&ED, ImmD and ASU;
 - vi. Use CCTVs to monitor the affected areas;
 - vii. Make log records / OB entries for the incidents;
 - viii. Prepare Incident Reports for both the HKIA and IAC SITREPs; and
 - ix. Instruct TAD staff to conduct on-site alarm function tests.
- b. IT Action :
 - i. To repair / replace the non-functioning access switch.

3. Scenario 3 - Both access switch failure

- No network service can be provided to the ACS devices connected to this CR. The impact is localised to this CR, not this zone nor all zones.
 - Alarms generated by some local devices cannot be transmitted to the ACS workstations.
 - Some ACS doors cannot be controlled remotely by the ACS workstations.
- a. AVSECO-IAC Action:
 - i. Immediately inform: AED Ops I; AED Ops II; SM Ops I-AC; SM Ops II-AS; DSM; DSC; DDSC; and ADSC;
 - ii. Alert the Command Posts of TAD, AAD, BSD, PSD & TRA to enhance patrols of Terminal 1, Sky Bridge, T1S, T1M, SkyPier Terminal, and the apron areas;
 - iii. For the urgent control of the ACS doors, instruct TAD staff to prepare to use the Special Access Control Cards and, when conducting permit checks, to pay attention to the Card-Reader images / visual checks;
 - iv. Alert AA-ADM, AA-IAC, AA-SSBC, and inform the AA-FRT to conduct urgent repairs;
 - v. Inform APCR, C&ED, ImmD and ASU;
 - vi. Use CCTVs to monitor the affected areas;
 - vii. Make log records / OB entries for the incidents;

- viii. Prepare Incident Reports for both the HKIA and IAC SITREPs; and
 - ix. Instruct TAD staff to conduct on-site alarm function tests.
- b. IT Action:
- i. To repair / replace the non-functioning access switches.
4. Scenario 4 - One distribution switch failure
- No service impact.
- a. AVSECO-IAC Action:
- i. No action is required.
- b. IT Action:
- i. To repair / replace the non-functioning distribution switch.
5. Scenario 5 - Both distribution switches failure
- No network service can be provided within the zone. The impact is localised to this zone, not all zones, nor the whole ACS network.
 - Alarms generated by local devices for this affected zone cannot be transmitted to the ACS workstations.
 - ACS doors of the affected zone cannot be controlled remotely by the ACS workstations.
- a. AVSECO-IAC Action:
- i. Immediately inform: AED Ops I; AED Ops II; SM Ops I-AC; SM Ops II-AS; DSM; DSC; DDSC; and ADSC;
 - ii. Alert the Command Posts of TAD, AAD, BSD, PSD & TRA to enhance patrols of Terminal 1, Sky Bridge, T1S, T1M, SkyPier Terminal, and the apron areas;
 - iii. For the urgent control of the ACS doors, instruct TAD staff to prepare to use the Special Access Control Cards and, when conducting permit checks, to pay attention to Card-Reader images / visual checks;
 - iv. Alert AA-ADM, AA-IAC, AA-SSBC, and inform the AA-FRT to conduct urgent repairs;
 - v. Inform APCR, C&ED, ImmD and ASU;
 - vi. Use CCTVs to monitor the affected areas;
 - vii. Make log records / OB entries for the incidents;
 - viii. Prepare Incident Reports for both the HKIA and IAC SITREPs; and
 - ix. Instruct TAD staff to conduct on-site alarm function tests.
- b. IT Action:
- i. To repair / replace the non-functioning distribution switches.
6. Scenario 6 - One core switch failure
- No service impact.

- a. AVSECO-IAC Action:
 - i. No action is required.
- b. IT Action:
 - i. To repair / replace the non-functioning core switch.

7. Scenario 7 - Both core switches failure

- All zones work locally, but cannot communicate across zones.
 - The CDC at each zone can manage and control the ACS devices, but with no communication to the headend servers. (Refer to section 1, Failure of the Headend Servers)
 - Alarms generated by local devices cannot be transmitted to ACS workstations.
 - ACS doors cannot be controlled remotely by the ACS workstations.
- a. AVSECO-IAC Action:
 - i. Immediately inform: AED Ops I; AED Ops II; SM Ops I-AC; SM Ops II-AS; DSM; DSC; DDSC; and ADSC;
 - ii. Alert the Command Posts of TAD, AAD, BSD, PSD & TRA to enhance patrols of Terminal 1, Sky Bridge, T1S, T1M, SkyPier Terminal, and the apron areas;
 - iii. For the urgent use of the ACS doors, instruct TAD staff to prepare to use the Special Access Control Cards and, when conducting permit checks, to pay attention to the Card-Reader images / visual checks;
 - iv. Alert AA-ADM, AA-IAC, AA-SSBC, and inform the AA-FRT to conduct urgent repairs;
 - v. Inform APCR, C&ED, ImmD and ASU;
 - vi. Use CCTVs to monitor the affected areas;
 - vii. Make log records / OB entries for the incidents;
 - viii. Prepare Incident Reports for both the HKIA and IAC SITREPs; and
 - ix. Instruct TAD staff to conduct on-site alarm function tests.
 - b. IT Action:
 - i. To resume the operational serviceability of the failed core switches.

End of BCP – F1

Business Continuity Manual

Business Continuity Plan: F2

Elevated Security Threat Response

		Signature	Revision	Effective Date
Updated By	Assistant General Manager Airport Security, SSBC	 Debbie Poon		
Reviewed By	Assistant General Manager BCP, SSBC	 Emily Chu	32	Jun 2023
Approved By	General Manager SSBC	 David Jea		

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A. ELEVATED SECURITY THREAT RESPONSE

1.0 Introduction

1. ICAO requires each Contracting State to adjust its security response according to the level of threat to civil aviation within its territory.
2. Based on the Risk Management Matrix of the ICAO Security Manual, with a view to adjusting the security responses for threat targeted at the airport, aircraft operators or high risk flights under different threat levels, a Civil Aviation Risk Management Plan (CARMP) for the HKIA has been developed. As part of the Hong Kong Aviation Security Programme, the CARMP serves as the sole reference indicator of threat level and corresponding countermeasures at the HKIA.
3. In the context of the CARMP, a high risk flight refers to a flight of a specific aircraft operator and / or to a destination which, based on intelligence from the Police, may be subject to a higher threat.
4. The CARMP adopts the 6-level threat system, as used by the Police. Under the Hong Kong Aviation Security Programme, the Police are responsible for the threat assessments. Where there is information to suggest that a credible threat exists to civil aviation in Hong Kong, the Police shall advise the Aviation Security Authority and Civil Aviation Department (CAD) accordingly.
5. When threat level is “negligible”, the security measures form the baseline responses on which more stringent security measures are built upon. To meet the raised levels of threat, for implementation at the centralised screening checkpoints prior to entering the sterile area, tighter security measures are proposed. Further enhancements to security responses are then adopted at departure gates to meet the specific levels of threat for high risk flights.
6. The security controls adopted under the different threat levels in the CARMP only set out the minimum requirements of the Aviation Security Authority. To further secure their operations, this does not prevent the airport manager or aircraft operators from tightening security controls as they may think fit.
7. To supplement the CARMP, the AA has developed its own internal HKIA AVSEC Risk Management Plan (HKIARMP), which, during any period of elevated threat, provides additional guidance and reference as to the additional measures that may be necessary. The HKIARMP is a four level threat response system, adopting the colour code of Green, Amber, Red and Black. The purpose of this document is to (1) allow the AA to adjust security measures at the HKIA pursuant to its own threat assessment in circumstances where, under the CARMP, no adjustment of the threat level is deemed necessary; and / or (2) allow the AA to supplement measures already contained under the CARMP with additional measures. The HKIARMP is included in this document as item G.
8. To identify the threat, according to Police’s specific intelligence, joint meetings will be convened and will, through consultation with Police, AA, AVSECO, aircraft operators and their handling agents as appropriate, decide on additional security controls that may be required.

2.0 Definitions

1. The threat levels in the CARMP are defined as follows:
 - a. **Negligible:** A target is unlikely to be attacked;
 - b. **Low:** There is nothing to indicate that a target would be singled out for an attack;
 - c. **Moderate:** A target's circumstances indicate that there is potential for it to be singled out for attack;
 - d. **Significant:** Recent general intelligence on terrorist activity, the overall security and political climate, or the target's general circumstances indicate that it is likely to be a priority target;
 - e. **High:** Specific intelligence, recent events or a target's particular circumstances indicate that it is likely to be a high priority; and
 - f. **Imminent:** Specific intelligence shows that a target is at a very high level of threat.
2. Under the HKIARMP threat levels are defined as follows:-
 - a. **Green:** Equivalent to Negligible / Low;
 - b. **Amber:** Equivalent to Moderate;
 - c. **Red:** Equivalent to Significant; and
 - d. **Black:** Equivalent to High / Imminent.

3.0 Objectives

1. To establish alerting channels for all internal / external affected parties;
2. To formalise the processes under which tightened security measures, in accordance with respective threat levels, are implemented; and
3. Under such circumstances, establish clear lines of command and co-ordination between organisations working in support of airport operations.

4.0 Alerting

Under normal circumstances, any escalation or de-escalation of the Threat Alert Level will be declared by the Aviation Security Authority, or CAD as delegated by it.

B. ROLES & RESPONSIBILITIES

1.0 Aviation Security Authority / CAD

The Aviation Security Authority or CAD will convene joint meetings to decide, in consultation with Police, AA, AVSECO, aircraft operators and their handling agents, on additional security controls that may be required.

2.0 Airport Authority

1. In support of the Police, and to ensure safety and to minimise the impact of any incident on airport operations, oversee the safety of all operations at the airport and coordinate additional security controls by AVSECO, airport operators and aircraft operators; and
2. Where appropriate, conduct its own risk assessment and apply additional measures as contained in the HKIARMP.

3.0 Police

1. Conduct a threat assessment, and provide its assessment and advice to the Aviation Security Authority.
2. Where Police resources are deployed, the Police's most senior officer present shall have command and control of that aspect of the operation, and may summon representatives from other airport organisations to assist him / her in co-ordinating the additional security controls.
3. During an Imminent Threat Alert Level, in the interests of public safety, the Police may override the rights and privileges that the owner of a facility, or tenant, may otherwise enjoy. Under such circumstances, the owner of the facility, or tenant, shall act in support of the Police, until such time as the incident is stood down and control of the facility is returned to them.

C. ADDITIONAL SECURITY CONTROLS

1.0 Implementation

1. When an Imminent Threat Alert Level is declared by the Aviation Security Authority, or CAD as delegated by it, at the screening checkpoints prior to the Enhanced Security Restricted Area, additional security controls including but not limited to the following may be implemented with immediate effect:
 - a. Increased use of pat-down search;

- b. Increased hand search of passengers and crew cabin baggage and / or other restrictions, such as the prohibition of carry-on bags or handbags except for limited items e.g. passport, wallet, electronic paraphernalia and prescribed medicines essential for the duration of the flight etc.;
 - c. Explosive trace detection screening of all laptops and other electronic paraphernalia; and
 - d. Enhanced vehicle search.
2. Any persons not complying with the additional security controls will not be accepted for entry into the Enhanced Security Restricted Area.

D. INFORMATION DISSEMINATION AND MEDIA HANDLING

1. The Secretariat Press Office shall, in consultation with the Information Services Department, Police Public Relations Branch and AA Corporate Affairs Department, co-ordinate all media enquiries relating to the incident; and
2. All press or media enquiries to the AA regarding any such incident should be referred to the Senior Manager, Media Relations, who will liaise with the Secretariat Press Office for an appropriate response.

E. STAND-DOWN OF ALERT

When the Aviation Security Authority is satisfied that the threat level to civil aviation in Hong Kong has decreased, and additional security controls responses are no longer required, it shall stand down the alert. Parties will be notified in accordance with alerting arrangements as per section A.4.0 above.

F. AIRPORT AUTHORITY AIRPORT EMERGENCY CENTRE

1.0 Implementation

1. As result of any elevated threat, and if substantial impact(s) is caused or expected to be caused to normal airport operations, the Airport Emergency Centre (AEC) will be activated by the Airport Duty Manager;
2. To facilitate the emergency responses and rapid restoration of the airport to normal operations, the Airport Emergency Centre, located inside the Integrated Airport Centre (IAC), adjacent to Airport Gate 1, (Plan 10 Airport Grid Map C-25), will be activated during an airport emergency, and function as an off-scene central point of command and co-ordination for the Police, AA, government departments, AVSECO, aircraft operators, handling agents and airport operators;

3. The Airport Emergency Centre will be staffed by the Airport Duty Manager and initially the IAC Duty Teams, until they are relieved by the support team from Safety, Security and Business Continuity Department; and
4. The operations of the Airport Emergency Centre will be supported as necessary, by representatives of: aircraft operators / handling agents concerned; AVSECO; Airline Operators Committee (AOC); Hong Kong Airline Service Providers Association (HASPA); Police; AA Corporate Affairs Department; Information Services Department; Airline's Ramp Handling Franchisee; Airline's Line Maintenance Franchisee; and AA Technical Services Infrastructure Department.

G. HKIA AVSEC RISK MANAGEMENT PLAN

Scope:

1. Protection of Airport Restricted Area;
2. Protection of the Enhanced Security Restricted Area;
3. Aircraft Security;
4. Hold Baggage Security;
5. Air Cargo, Courier & Express Parcels and Mail Security;
6. Aircraft Catering Security; and
7. Landside Security

1. Protection of the Airport Restricted Area

	GREEN	AMBER	RED	BLACK
Physical Security (Airfield)	<ul style="list-style-type: none"> Airport Gate Houses ARA perimeter fence & 3-meters clearance zone Security perimeter lighting Perimeter Intrusion Detection System Perimeter CCTV Metal grills for storm drainage Security Mobile Patrol Programme & incident response 		<ul style="list-style-type: none"> AVSECO to deploy 1 additional patrol vehicle on North Perimeter AVSECO to increase security patrols & checks of security seals of ventilation shafts & air ducts at landside/airside interface AVSECO to dedicate CCTV for active surveillance of strategic locations at North Perimeter 	<ul style="list-style-type: none"> AVSECO to step up security patrols of vulnerable points which should include but not limited to landside/airside storm drainage outfall; ARA/TRA interfaces; utility stations AVSECO to patrol on passenger apron AVSECO to guard exit lanes at MFS & MFN checkpoints
Physical Security (Terminal 1)	<ul style="list-style-type: none"> Physical partition of landside/airside interface Passenger, aircrew & airport staff access channels Motion Detection Alarm System & Infra Red Alarm System Security Guarding Programme & incident response 		<ul style="list-style-type: none"> AVSECO to deploy 1 additional guard at T1 staff entry points AVSECO to step up crowd control management / tactics at PAX screening checkpoints AVSECO to increase security patrols & checks of security seals of ventilation shafts & air ducts at landside/airside interface 	
Access Control	<ul style="list-style-type: none"> ARA Permits for airport staff ARA Vehicle Permits Aircrew documentation checks (CMC/Airline ID cards) Passenger boarding pass checks at designated passenger entry points 			<ul style="list-style-type: none"> Suspend issue of & using Visitor Pass

2. Protection of the Enhanced Security Restricted Area

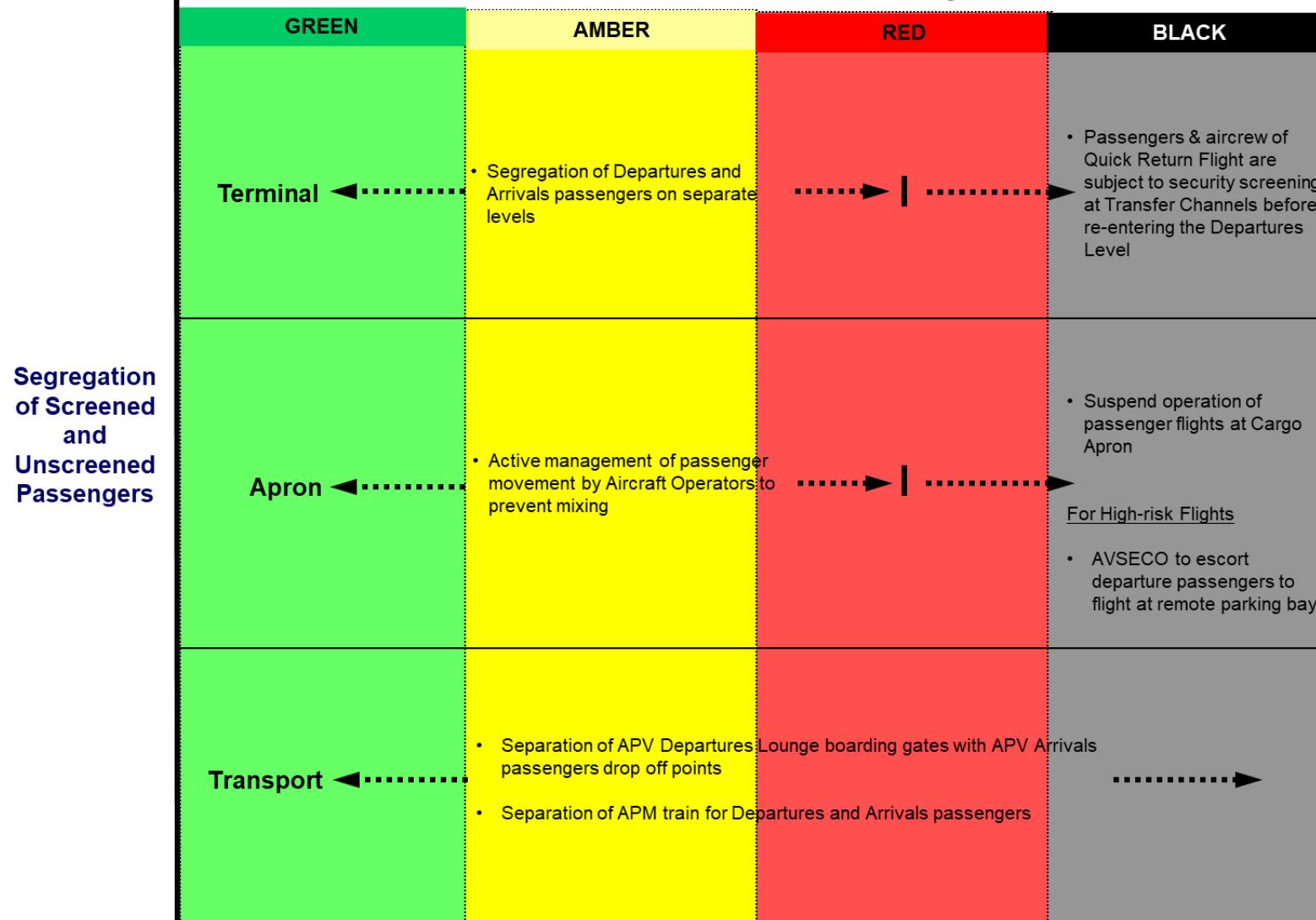
**Airport Staff,
Aircrack,
Vehicles &
Goods**

GREEN	AMBER	RED	BLACK
<p>Airport Staff & Crew</p> <ul style="list-style-type: none"> • Overall AMD alarm rate 15% • Random hand search rate 3% <p>Vehicle Control</p> <ul style="list-style-type: none"> • 100% search of vehicles except for those vehicles authorized under Sealed Vehicle Protocol • Access control of vehicles to South Loading Dock 	<p>Airport Staff & Crew</p> <ul style="list-style-type: none"> • 100% screening of airport staff & belongings at designated screening channels • 100% screening of aircrew and crew baggage at designated screening channels • 100% screening of all authorized goods at designated screening channels <p>Vehicle Control</p> <ul style="list-style-type: none"> • Subject 3% of notebook computers to ETD 	<p>Airport Staff & Crew</p> <ul style="list-style-type: none"> • Overall AMD alarm rate 20% • Random hand search rate 5% • Subject >10% of notebook computers to ETD <p>Vehicle Control</p> <ul style="list-style-type: none"> • 100% search of vehicles except for subject 25% of sealed vehicles authorized under Sealed Vehicle Protocol to searching • Access control of vehicles to South Loading Dock • Enhanced vehicle security searches at Airport Gate Houses and Midfield Screening Points: <ul style="list-style-type: none"> ➢ 100% underneath vehicle checks; ➢ Deployment of dedicated vehicle search team (to rotate between GH1, 2 & 3) 	<p>Airport Staff & Crew</p> <ul style="list-style-type: none"> • Overall AMD alarm rate 30% • Random hand search rate 10% • Reasoned secondary search to be conducted by HAND • Subject >10% of notebook computers to ETD <p>Vehicle Control</p> <ul style="list-style-type: none"> • Vehicle security searches – same as RED except 100% search of vehicles

2. Protection of the Enhanced Security Restricted Area

GREEN	AMBER	RED	BLACK
<p>Passengers & Cabin Baggage Screening</p> <ul style="list-style-type: none"> Overall AMD alarm rate 15% Random hand search of passengers 3% <p>For High-risk Flights</p> <ul style="list-style-type: none"> Aircraft Operator to conduct additional hand search of 10% of passengers and cabin baggage at the boarding gate 	<ul style="list-style-type: none"> 100% screening of passengers at designated screening channels 100% screening of cabin baggage at designated screening channels <p>For High-risk Flights</p> <ul style="list-style-type: none"> Aircraft Operator to conduct additional hand search of 10% of passengers and cabin baggage at the boarding gate 	<ul style="list-style-type: none"> Overall AMD alarm rate 20% Random hand search of passengers 5% In addition to reasoned secondary search, random hand search of cabin baggage 6% Subject 3% of notebook computers to ETD <p>For High-risk Flights</p> <ul style="list-style-type: none"> Aircraft Operator to conduct additional hand search of 10% of passengers and cabin baggage at the boarding gate 	<ul style="list-style-type: none"> Overall AMD alarm rate 30% All reasoned secondary search to be conducted by HAND Random hand search of passengers 10% In addition to reasoned secondary search, random hand search of cabin baggage 20% Subject ALL electrical items to ETD One cabin baggage per passenger 100% screening of PAX shoes <p>For High-risk Flights</p> <ul style="list-style-type: none"> At boarding gate, Aircraft Operator to screen again: <ul style="list-style-type: none"> All PAX by hand; or by HHMD with 20% of the HHMD screened PAX subject to hand search All cabin baggage by hand; or by X-ray with 20% of cabin baggage which has been X-ray screened subject to hand search

2. Protection of the Enhanced Security Restricted Area



3. Aircraft Security

	GREEN	AMBER	RED	BLACK
Access Control to Aircraft	<ul style="list-style-type: none">• Aircraft Operator to ensure that in respect of unattended aircraft, doors are closed, steps and/or airbridges are withdrawn• Additional measures as per Aircraft Operator's own risk assessment			<p><u>For High-risk Flights</u></p> <ul style="list-style-type: none">• AVSECO to deploy step guards, ramp guards and conduct searches by HHMD
Aircraft Security Checks	<ul style="list-style-type: none">• Aircraft Operator or AVSECO to conduct pre-flight security checks prior to passenger boarding			<p><u>For High-risk Flights</u></p> <ul style="list-style-type: none">• Aircraft Operator or AVSECO or HKP to conduct aircraft security search prior to passenger boarding

4. Hold Baggage Security

	GREEN	AMBER	RED	BLACK
Hold Baggage Screening	<ul style="list-style-type: none">• 100% screening of all hold baggage• Reinforced by TIP insertion rates:<ul style="list-style-type: none">➢ Level 2 : 1%➢ Level 3 : 0.5%		<ul style="list-style-type: none">• 100% screening of all hold baggage• Reinforced by TIP insertion rates:<ul style="list-style-type: none">➢ Level 2 : 2%➢ Level 3 : 1%	<ul style="list-style-type: none">• 100% screening of all hold baggage• Reinforced by TIP insertion rates:<ul style="list-style-type: none">➢ Level 2 : 5%➢ Level 3 : 2%
Hold Baggage Reconciliation			<ul style="list-style-type: none">• Subject 10% of hold baggage to additional screening by one of the following methods:<ul style="list-style-type: none">➢ Explosive Detection Systems; or➢ Advanced technology where the images of all bags are viewed by the operator; or➢ Conventional X-ray equipment with each bag being viewed by the same operator at the same screening point; or➢ Hand search supplemented by application of trace detection equipment on each piece of baggage	<p><u>For High-risk Flights</u></p> <ul style="list-style-type: none">• 100% screening by CTX

4. Hold Baggage Security

	GREEN	AMBER	RED	BLACK
Unaccompanied Hold Baggage	<ul style="list-style-type: none"> • 100% screening of all hold baggage with TIP image insertion (i.e. through regular Hold Baggage Screening) • Aircraft Operator to conduct checks to establish ownership and history of unaccompanied hold baggage's journey and cross check with outstations • Additional screening of the baggage by one of the following methods: <ul style="list-style-type: none"> ➢ Explosive Detection Systems; or ➢ Advanced technology where the images of all bags are viewed by the operator; or ➢ Conventional X-ray equipment with each bag being viewed by the same operator at the same screening point; or ➢ Hand search supplemented by application of trace detection equipment on each piece of baggage • Aircraft Operator to notify the Aircraft Commander that such baggage has been entered onto the Baggage Manifest 			
Mishandled Baggage	<ul style="list-style-type: none"> • 100% screening of all hold baggage with TIP image insertion (i.e. through regular Hold Baggage Screening) • Aircraft Operator to conduct checks to establish ownership and history of unaccompanied hold baggage's journey and cross check with outstations 		<ul style="list-style-type: none"> • Subject 10% of hold baggage to additional screening by one of the following methods: <ul style="list-style-type: none"> ➢ Explosive Detection Systems; or ➢ Advanced technology where the images of all bags are viewed by the operator; or ➢ Conventional X-ray equipment with each bag being viewed by the same operator at the same screening point; or ➢ Hand search supplemented by application of trace detection equipment on each piece of baggage 	

**Protection of
Hold
Baggage**

4. Hold Baggage Security

GREEN	AMBER	RED	BLACK
<ul style="list-style-type: none">• Aircraft Operator to ensure hold baggage is only accepted from ticketed passengers at designated facilities• Accepted hold baggage removed from passengers and conveyed to flight laterals by means of BHS / OOG / SkyPier Bonded Road / AEL train as appropriate• Hold baggage from SkyPier and In-town Check-in delivered to security restricted area at HKIA in sealed containers• Aircraft Operator to ensure hold baggage is protected from unauthorized interference from flight laterals to aircraft uplift			<ul style="list-style-type: none">• AVSECO to deploy guard to surveillance baggage laterals• Suspend In-town Check-in Facility <p><u>For High-risk Flights</u></p> <ul style="list-style-type: none">• Aircraft Operator to ensure baggage containers to be escorted to aircraft

5. Air Cargo, Courier & Express Parcels and Mail Security

	GREEN	AMBER	RED	BLACK
Air Cargo	<ul style="list-style-type: none">100% X-ray screening on cargo tendered by a consignor other than known consignor assigned for carriage on board commercial aircraft1% random X-ray screening on known cargo originated from known consignor assigned for carriage on board commercial aircraft <p><u>For high-risk flights</u></p> <ul style="list-style-type: none">subject 100% of cargo to X-ray screeningthe additional application of a different type of security screening method randomly on 10% such cargo		<ul style="list-style-type: none">100% X-ray screening on cargo tendered by a consignor other than known consignor assigned for carriage on board commercial aircraft, and the additional application of a different type of security screening method randomly on 5% such cargo5% random X-ray screening on known cargo originated from known consignor assigned for carriage on board commercial aircraft	
Air Mail		<ul style="list-style-type: none">100% X-ray screening on air mail		

Aircraft
Catering

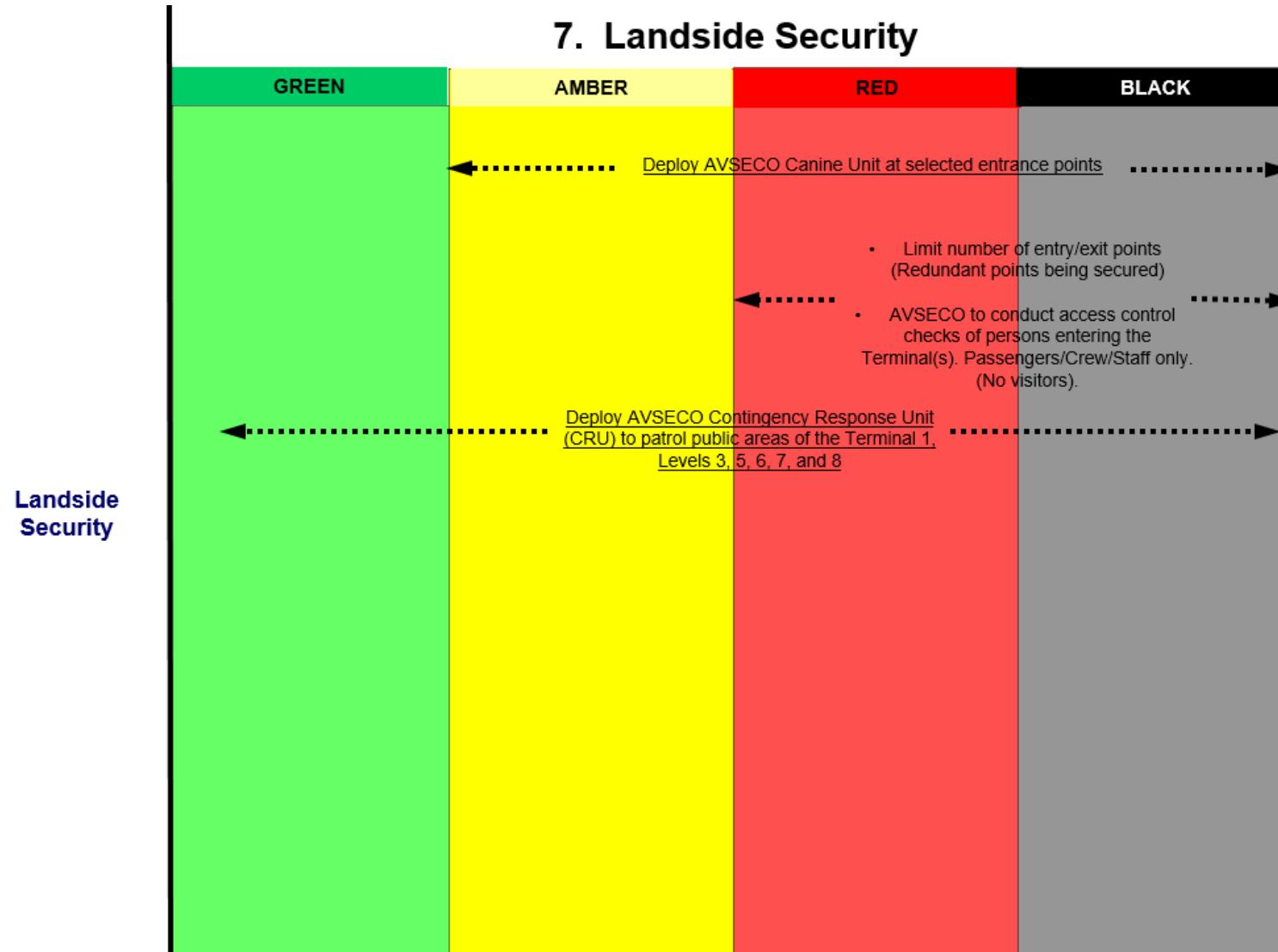
6. Aircraft Catering Security

GREEN	AMBER	RED	BLACK
<ul style="list-style-type: none">• Aircraft Operator to ensure aircraft catering supplies are prepared in premises subjected to security controls and are protected from unlawful interference• Aircraft Operator to ensure aircraft catering supplies are delivered from the catering base to the Airport Restricted Area in sealed vehicles			

7. Landside Security

Landside Security

GREEN	AMBER	RED	BLACK
<ul style="list-style-type: none"> • Daily patrol by Airport Police • Regular patrol by AA Duty staff • CCTV surveillance • TRA Security Programmes • AA facilities secured • Access to South Loading Dock secured • Major facilities secured: <ol style="list-style-type: none"> 1. Generator Building (GH1) - backup power to T1 2. T1 Chiller Plant Room (inside PTB) 3. Switching Station EX - power to T1S, GTC & APM (near Bus Terminus) 4. Switching Station AD - power to IAC 5. Switching Station D - power to Seawater Pump House 5, Vault A & D for airfield facilities (near DHL expansion) 6. Switching Station H - power to IAC, Seawater Pump House 1, Vaults B & C for airfield facilities (next Seawater Pump House 1 near Gate House 1A) 7. Switching Station T - power to Localizer Bldg., Comms. Room, Traffic Control Surveillance System (next to CLP Substation A) 8. Switching Station S - power to Comms. Room, Traffic Control Surveillance System (next to landside Fire Station) 		<p style="color: white;"><u>Terminal 1</u></p> <ul style="list-style-type: none"> • Actively monitor entry points to T1 by means of landside CCTV • Consider to suspend use of automated trolley return uplift (from Car Park 1 to Level 5 Baggage Reclaim Hall at T1) • Deploy security controls at Cheong Tat Road entry point - <ul style="list-style-type: none"> - Authorized vehicles only • Suspend all vehicles parking at Cheong Tat Road (except emergency service vehicles) • Conduct vehicle screening of all coaches entering Coach Station • Ensure fast removal of unattended vehicles • Locate rubbish bins away from likely terrorist targets and windows; and increase frequency for emptying 	 <ul style="list-style-type: none"> • AA to increase public announcements on security awareness • AA to encourage airport community to report any suspicious activities <ul style="list-style-type: none"> • Restrict access to passengers only • Deploy security at all entry points to T1 to allow entry only to ticketed passengers, aircrew and airport staff. • In support of Police Operations – Deploy traffic chicane on up ramp to Level 8 vehicle drop off kerb at T1 • Suspend use of Coach Station. Redeploy coach operations to remote car park locations • Remote Vehicle Drop Off – Suspend private vehicles accessing T1 via ramp roads



END OF BCP – F2

Business Continuity Manual

Business Continuity Plan: F3

Landside Security

		Signature	Revision	Effective Date
Updated By	Assistant General Manager Airport Security, SSBC	 Debbie Poon		
Reviewed By	Assistant General Manager BCP, SSBC	 Emily Chu	32	Jun 2023
Approved By	General Manager SSBC	 David Jea		

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BCP – F3. Landside Security Table of Contents

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C	Scenario 2 – Amber Alert	F3. 6
D	Scenario 3 – Red Alert	F3. 7
E	Scenario 4 – Black Alert	F3. 8

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A. LANDSIDE SECURITY

1.0 Introduction

1. For implementation of the Hong Kong Civil Aviation Risk Management Plan (CARMP), as set out in the Hong Kong Aviation Security Programme, the Hong Kong International Airport (HKIA) has the HKIA AVSEC Risk Management Plan (HKIARMP). The HKIA adjusts its security responses on various risk / emergency situations according to the level of perceived / actual threat based on the HKIARMP.
2. The HKIARMP operates on 4 levels of security threat. The threats are classified as Green, Amber, Red and Black, where, in terms of the enhanced security measures, Black is the most comprehensive.
3. For Landside Security, where intelligence suggests the airport is at risk, such as from possible terrorist activity, the HKIARMP is designed to progressively secure the airport such as by controlling access to Terminal 1, from various risks / emergency situations.
4. For Landside Security, the HKIARMP applies to the security activities provided to the landside areas of the airport such as: vehicular controls; daily patrols; CCTV monitoring; and other landside security activities.
5. For Landside Security, during risks / emergency situations, the HKIARMP progressively enforces airport security, restricts vehicular access to Terminal 1 and increases the clearance zone between parked vehicles and Terminal 1 facades.
6. In accordance with the activation of different levels of security threat, various restrictions to vehicular access into landside areas adjacent to Terminal 1 building are implemented.
7. The Airport Police, AA Duty Staff and AVSECO conduct increased daily patrols, progressively restrict access to Terminal 1, deploy additional security controls and suspend vehicle parking along Cheong Tat Road, that runs between Terminal 1 and the GTC.
8. AVSECO increases its mobile security patrols of key locations including power generator buildings, screens coaches, conducts surveillance of the airport perimeter, and conducts periodic integrity checks.
9. Coaches are directed to remote areas, e.g. Car Park 5 or SkyCity Car Park, and private vehicles to a passenger set down point, e.g. AsiaWorld- Expo Car Park, from where passengers are transferred to the Terminal 1 via shuttle buses that have already been pre-screened by AVSECO.
10. LD progressively suspends the parking at AA Staff, Visitor's Car Parks, and the Limousine Lounge Area of Cark Park 1.

NOTE:

- a. In relation to the activated security threat level and in addition to those shown below, other Landside and Airside Security Measures are also implemented at HKIA.

- b. Implementation of these measures during any event will remain conditional upon measures imposed by Hong Kong Aviation Security Authority, or CAD as delegated by it.

B. SCENARIO 1 – GREEN ALERT

1.0 Security Level

1. Green Threat Level Summary

This level is used to indicate that the airport is unlikely to be attacked and there is nothing to indicate that a target at the HKIA would be singled out for attack, and is equivalent to “Negligible” and “Low” under the CARMP.

2.0 Level of Implementation – Green Threat Level

1. Routine daily patrols by the Airport Police;
2. AA Duty Staff conduct normal landside patrols;
3. Routine security patrols of the public areas (by AVSECO);
4. Conduct CCTV surveillance;
5. Implement TRA Security Programmes;
6. AA facilities routinely check secure by AVSECO;
7. Access to South Loading Dock secured by AVSECO; and
8. Power generators secured.

C. SCENARIO 2 – AMBER ALERT

1.0 Security Level

1. Amber Threat Level Summary

This level indicates that the airport may potentially be attacked, such that relevant required actions will be reinforced at the HKIA, and is equivalent to “Moderate” under the CARMP.

2.0 Level of Implementation – Amber Threat Level

1. Routine daily patrols by Airport Police;
2. AA Duty staff conduct normal landside patrols;
3. Routine security patrols of the public areas (by AVSECO);
4. Conduct CCTV surveillance;
5. Implement TRA security programmes;
6. AA facilities routinely check secure by AVSECO;
7. Access to South Loading Dock secured by AVSECO; and

8. Power Generators secured.

D. SCENARIO 3 – RED ALERT

1.0 Security Level

1. Red Threat Level Summary

This level indicates that, based on recent intelligence / terrorist activity and / or the political situation HKIA is likely to be a priority target, thus the overall security levels will be significantly increased at the HKIA. This threat level is equivalent to “Significant” under the CARMP.

2.0 Level of Implementation – Red Threat Level

1. Terminal 1
 - a. AVSECO and AA Duty Staff, by means of landside CCTV actively monitor the entry points to Terminal 1);
 - b. Suspend use of automated trolley return uplift, from car park areas to Level 5 Baggage Reclaim Hall at Terminal 1;
 - c. AVSECO deploy security controls along the Cheong Tat Road entry points to allow access by authorised vehicles only;
 - d. AVSECO suspend all vehicles parking along Cheong Tat Road, except for emergency service vehicles;
 - e. AVSECO conduct vehicle checks of all coaches entering the Coach Staging Area; and
 - f. AVSECO increase security patrol of the public areas.
2. AA Corporate Office
 - a. AA Administration will consider the suspension of the use of AA Staff and Visitors’ Car Parks at LG Level.
3. Airport Island Roads
 - a. AVSECO will deploy mobile security patrols at key locations, including the vehicular access and exit routes to Terminal 1.
4. Airport Car Parks
 - a. LD will suspend vehicle parking at Limousine Lounge Area of Car Park 1; and
 - b. To maintain a minimum clearance zone of > 50 metres between parked vehicles and Terminal 1 building facades, close the section of Car Park 1, including adjacent Taxi & LGV parking area.
5. Power Generator Buildings
 - a. To conduct hourly check of power generator buildings, AVSECO will deploy mobile patrols on landside roads.

6. Airport Perimeter

- a. To conduct surveillance of airport perimeter, AVSECO will deploy mobile patrols on landside roads ; and
- b. AVSECO will conduct periodic integrity checks of all drainage grilles and barriers protecting the ARA.

E. SCENARIO 4 – BLACK ALERT

1.0 Security Level

1. Black Threat Level Summary

This level indicates that terrorist activity has been detected, by specific intelligence, and the HKIA is considered to be a high priority target. This level is equivalent to “High” and “Imminent” under the CARPM.

2.0 Level of Implementation – Black Alert

1. Terminal 1

- a. Airport Police/AVSECO will restrict access to passengers only;
- b. To allow entry only to ticketed passengers, aircrew & airport staff, deploy security at designated entry/check points to Terminal 1;
- c. In support of Police operations, on the up-ramp to Level 8 vehicle drop off kerb at Terminal 1, LD will deploy a traffic chicane ;
- d. Suspend use of Coach Staging Area;
- e. Redeploy coach operations to remote location, e.g. Car Park 5 or SkyCity Car Park;
- f. Direct and monitor rerouted traffic flow;
- g. Direct and monitor rerouted passenger traffic flow into and out of the Terminal 1;
- h. Ensure trolley services are compatible with the rerouted passenger traffic flows; and
- i. AVSECO will increase security patrol of the public areas.

2. AA Corporate Office

- a. AA Admin will suspend use of the AA Staff and Visitors’ Car Parks at LG Level.

3. Airport Island Roads

- a. AVSECO will deploy mobile security patrols at key locations vehicular access and exit routes to Terminal 1 ; and
- b. Where the situation warrants, suspend private vehicle access to Terminal 1 and establish remote drop off arrangements at the AsiaWorld-Expo Car Park. (See Remote Vehicle Drop Off below).

4. Airport Car Parks

- a. LD will suspend vehicle parking at the Limousine Lounge Area of Car Park 1; and
- b. Maintain a minimum clearance zone of > 50 metres between parked vehicles and the Terminal 1 building's facades.

5. Power Generator Buildings

- a. AVSECO will deploy security staff to guard each power generator building.

6. Airport Perimeter

- a. AVSECO will increase the frequency of checks of all drainage grilles and barriers protecting the ARA.

7. Remote Vehicle Drop Off

- a. Where the risk of a vehicle borne attack to the Terminal 1 or other airport facilities are considered likely, all private vehicle access via the ramp roads will be suspended by LD / Bus Franchisee / Airport Police / AVSECO, as appropriate;
- b. Private vehicles will be diverted to a passenger set down point, most likely at the AsiaWorld-Expo Car Park, from where passengers will be bussed to Terminal 1, as arranged by LD;
- c. A road diversion plan will be activated;
- d. Between the passenger set down point and the Terminal 1, a bussing plan will be activated;
- e. Rerouted traffic will be proactively monitored;
- f. Rerouted passenger/staff traffic will be proactively monitored; and
- g. Trolley services to be compatible with the rerouted passenger traffic flows.

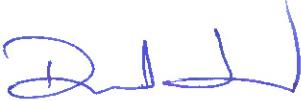
END OF BCP – F3

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Business Continuity Manual

Business Continuity Plan: F4

Suspected CBRN Contaminated Arrival Aircraft Management Procedures

		Signature	Revision	Effective Date
Updated By	Assistant General Manager Airport Security, SSBC	 Debbie Poon		
Reviewed By	Assistant General Manager BCP, SSBC	 Emily Chu	34	Nov 2023
Approved By	General Manager SSBC	 David Jea		

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BCP – F4. Suspected CBRN Contaminated Arrival Aircraft Management Procedures Table of Contents

<u>ITEM</u>	<u>SUBJECT MATTER</u>	<u>PAGE</u>
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B	Airport Authority Emergency Procedures Manual	F4. 5
C	Response Framework Components	F4. 5
D	Simplified Flow Diagrams Mapping Out Major Processes	F4. 10

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A. General

1. These procedures are intended to manage an arriving aircraft suspected to be contaminated with Chemical, Biological, Radiological and Nuclear (CBRN) agents.
2. The aims are to enable an integrated response to and management of arrival flights suspected of contamination from CBRN agents.
3. To ensure the safety of airport staff and other responders, major response elements will cover management of the passengers, crew, cabin & checked baggage, cargo, the aircraft itself, and precautionary measures taken.

B. Airport Authority Emergency Procedures Manual

1. The Emergency Procedures Manual (EPM) has applicable procedures from the :
 - a. CBRN Agent Incident Response (EPM Volume 2, Part 9B);
 - b. Aircraft Accident Response (EPM Volume 1, Part 2);
 - c. Public Health Emergencies Response (EPM Volume 3, Part 13);
 - d. These can be built upon to manage an arrival aircraft suspected possibly contaminated by CBRN agents.
2. It was noted that a major principle recommended by ACI and IATA is to implement exit screening at the originating port to avoid contaminated passengers boarding the aircraft in the first place.
3. Major components to be addressed in managing arrival flights suspected of contamination from CBRN agents include :
 - a. Alerting & Assessment;
 - b. Establish an Enabling Body at Policy Level, e.g. RIAG or PHIAG;
 - c. Aircraft Isolation;
 - d. Initial Onboard Assessment;
 - e. On-site Decontamination of Personnel (Passengers & Crew);
 - f. Casualty Management & Conveyance to Hospitals;
 - g. Non-hospitalized Persons Post-decontamination Management;
 - h. Decontamination of the Aircraft, Cabin and Checked-in Baggage, and Cargo; and
 - i. Media Management.

C. . Response Framework Components

1. Alert & Assessment
 - a. An alert is expected to come in, either via the aircraft, the aircraft operator's ground center, or from the ATC;
 - b. Once alerted, a government advisory group will be formed to take charge of the incident at the policy level;

- c. In accordance with the CBRN response procedures, RIAG (CBRN Incident Advisory Group) may be formed to take on the role of the government's advisory group;
 - d. If RIAG is not necessary, because the incident does not contain a security issue, then PHIAG (Public Health Incident Advisory Group) will be convened, and its operational procedures implemented;
 - e. At the airport operational level, the AEC will be activated, and manage the incident; and
 - f. Depending on whether RIAG or PHIAG is formed, the AEC activation will include CBRN or Public Health Incident alerting proforma.
2. Aircraft Isolation & Screening
- a. In the AEC, amongst the relevant departmental representatives, AA, aircraft operator, ramp operator, Police, FSD/AFC, ImmD, C&ED, Port Health, etc. coordination and decision making will take place;
 - b. Existing infectious diseases and CBRN procedures involving the use of the Isolated Aircraft Parking Position are to be implemented;
 - c. When the situation warrants, the designated isolated aircraft parking positions i.e. IAPP (South) between M1 and M2 at Maintenance & Long Term Parking Apron as used in past incidents, and IAPP (North) next to Taxiway Z2, will also be considered; and
 - d. In decontamination waste water management, existing communication links with Drainage Department/etc. are to be used.
3. Initial Onboard Assessment of Passengers & Crew
- a. In the AEC, amongst the relevant departmental representatives (e.g. AA, aircraft operator, ramp operator, Police, FSD/AFC, ImmD, C&ED, Port Health, etc., coordination and decision making will take place;
 - b. If the incident involves RIAG and the existing CBRN procedures, then the Police EOD personnel will make onsite assessments;
 - c. Existing CBRN procedures have FSD responsible for the decontamination of the: area; equipment; baggage; cargo; aircraft; and structures; and
 - d. If the incident involves PHIAG, then Port Health personnel will conduct onboard assessments, and the existing infectious diseases procedures will be activated.
4. Onsite Passenger & Crew Decontamination
- a. In the AEC, amongst the relevant departmental representatives (e.g. AA, aircraft operator, ramp operator, Police, FSD/AFC, ImmD, C&ED, Port Health, etc.), coordination and decision making will take place;

- b. As per existing CBRN procedures, if necessary, onsite passenger and crew decontaminations will be carried out by FSD;
- c. At the airport, transportation resources for passenger and crew are finite;
- d. Additional transportation resources may need to be drawn upon;
- e. Additional resources and procedures as per issued on 31st March 2011 by AS(ESU)2, Security Bureau, may be requested:
 - i. New procedures set out the call out procedure for Government Logistics Department (GLD) medium coaches, and CAS members to assist FSD in carrying out decontamination in the HKIA;
 - ii. To perform passenger voluntary radiation monitoring, AMS will man the Health Desk in the arrival hall of HKIA, at the APV-South Arrival and notify FSD FSCC of the presence of any abnormal case;
 - iii. Upon notification of an abnormal case, FSCC , will call out the decontamination equipment;
 - iv. When notified of an abnormal case, at the same time as requesting the decontamination equipment, FSCC are responsible to call out GLD coaches and CAS volunteers;
 - v. For the transportation of contaminated travelers, GLD will provide medium coaches;
 - vi. CAS will provide volunteers to escort contaminated travelers;
 - vii. To shorten the response time, GLD has arranged a driver to be on duty round the clock and the first coach can arrive at the HKIA in about 1.5 hours. As part of a predetermined turn-out, apart from the first coach, GLD will arrange another coach, which can normally arrive at the HKIA within 3 hours. On a needs basis, additional coaches, subject to availability, may be called out;
 - viii. FSCC will obtain the mobile telephone numbers of the GLD drivers and CAS team leader and, for the direct deployment of the resources, convey these numbers to the FSD Incident Commander;
 - ix. In case of urgency and prior to the arrival of GLD's transport, or due to other operational needs, the buses of AA and AFC will be on stand-by;
 - x. The AA bus will provide transport from the medical post manned by AMS at APV-South Arrival to on-site decontamination point set up by FSD at S6, the ground equipment staging area;
 - xi. The AFC bus will provide transport duty from FSD's on-site decontamination point at S6, ground equipment staging area, to the designated hospital, as advised by DH; and
 - xii. In accordance with Para. 7.12 of the Daya Bay Contingency Plan (DBCP) Part I, as issued by SB, in respect of injured and contaminated travelers, they will be conveyed by ambulances.

- d. In order to lessen the chances of secondary contamination of their surroundings, e.g. inside transport vehicles and at indoor waiting areas, as well as secondary contamination to other responders, Port Health may consider, when transporting them from various response sites, to suit up contaminated persons with PPE .

5. Post-Decontamination of Passenger & Crew

- a. This is a critical issue requiring multi-departmental coordination, as after going through the decontamination process, since all clothing and other personal properties that were on their persons would have been bagged as contaminated articles, all passengers & crew will have no money and identification ;
- b. After completing the onsite decontamination process, passengers and crew still showing signs of contamination will be transported to hospitals. Transportation arrangements are as per procedures issued by SB on the 31st of March 2011;
- c. After the decontamination process, passengers and crew showing a clean state will need to be looked after at the Passenger Reception Center (PRC);
- d. These passengers and crew will be wearing nothing except the post-decontamination gown (coveralls) and will have no ID's, no money, no glasses, no house keys, no mobile phones, etc.;
- e. To assist CIQ (Customs, Immigration & Quarantine) processes as well as to assist involved aircraft operators to provide humanitarian assistance to their passengers and crew, the Passenger Reception Center (PRC) will be activated; and
- f. As and when necessary, to assist aircraft operators to look after the affected meeters and greeters of involved passengers, the Family Reception Center (FRC) will be activated.

6. Decontamination of Aircraft, Cabin and Hold Baggage & Cargo

- a. For the cleaning of the aircraft exterior, aircraft cabins, cargo and cargo holds, as well as passengers' cabin and hold baggage, as necessary, the existing infectious diseases and CBRN decontamination procedures to be used ;
- b. Decontamination of the aircraft exterior, aircraft cabins, cargo and cargo holds have a lower priority than assisting passengers and crew;
- c. Actual decontamination methodologies of these areas will depend very much on the nature of the incident and the characteristics of the contaminant agent; and
- d. Policy decisions on decontamination / disposals / incineration and resultant compensation to passengers / crew / aircraft operator will also need to be addressed by the incident's advisor group at the policy level.

7. Staff & Responders Precautionary Measures

- a. To ensure the safety and well-being of airport staff and other responders, all possible precautionary safety measures must be taken; and
- b. During the initial and ongoing assessments of the incident / contaminants, existing infectious diseases and CBRN procedures for the responders' safety precautions will be reviewed and actioned, based upon recommendations from relevant government agencies including Port Health and Police.

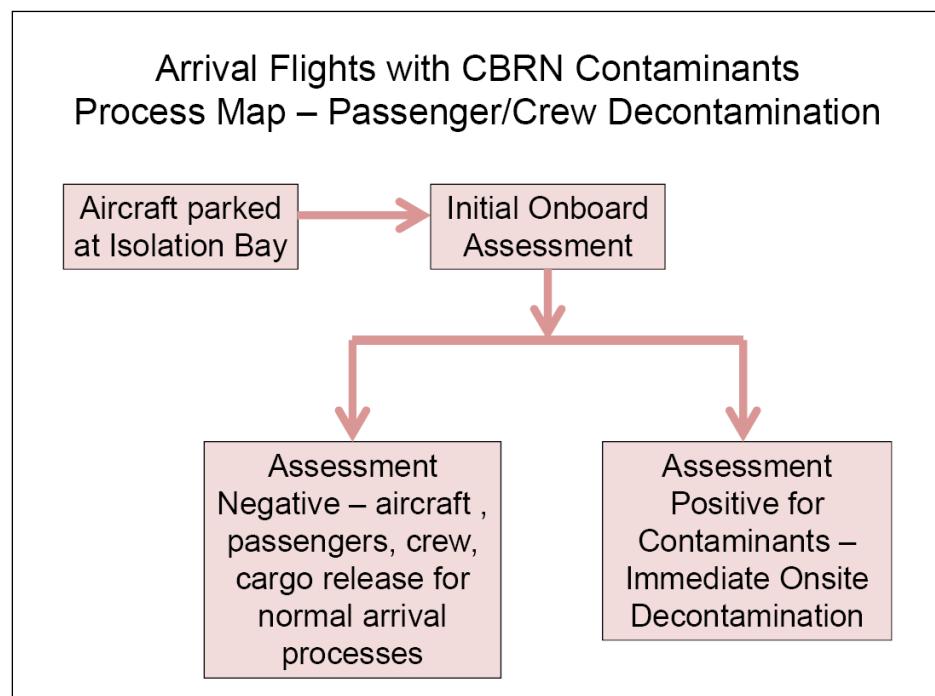
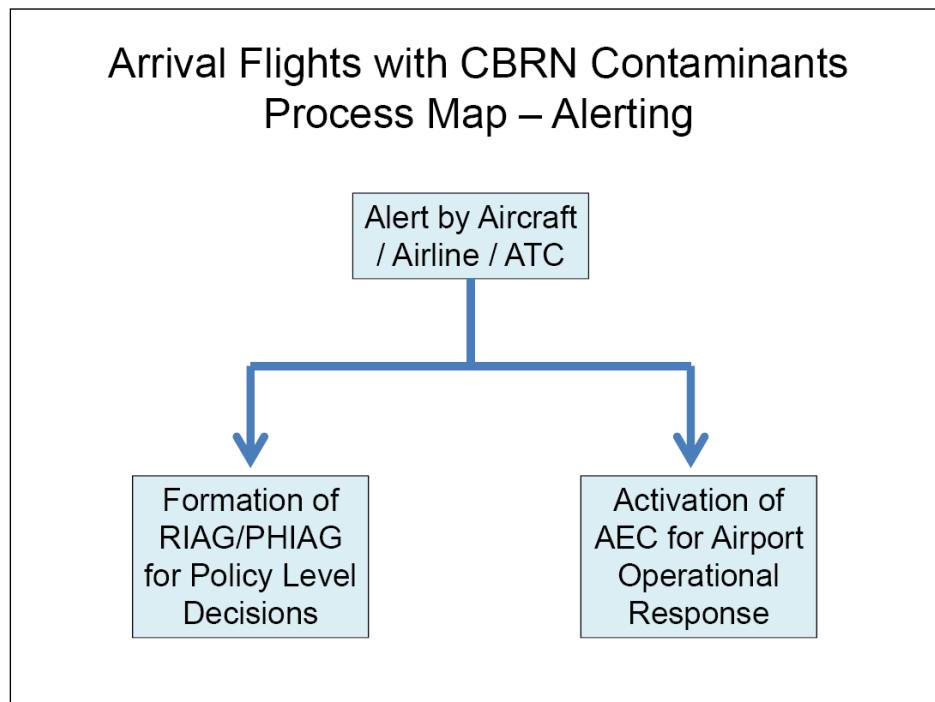
8. Isolation, Screening & Decontamination of Vehicles & Equipment Used

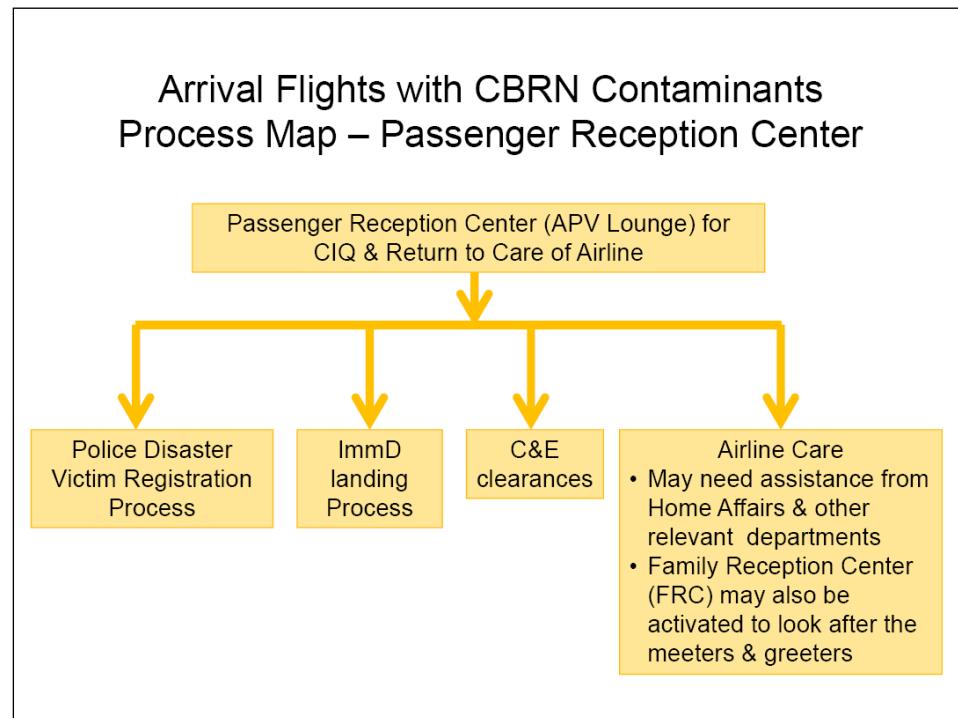
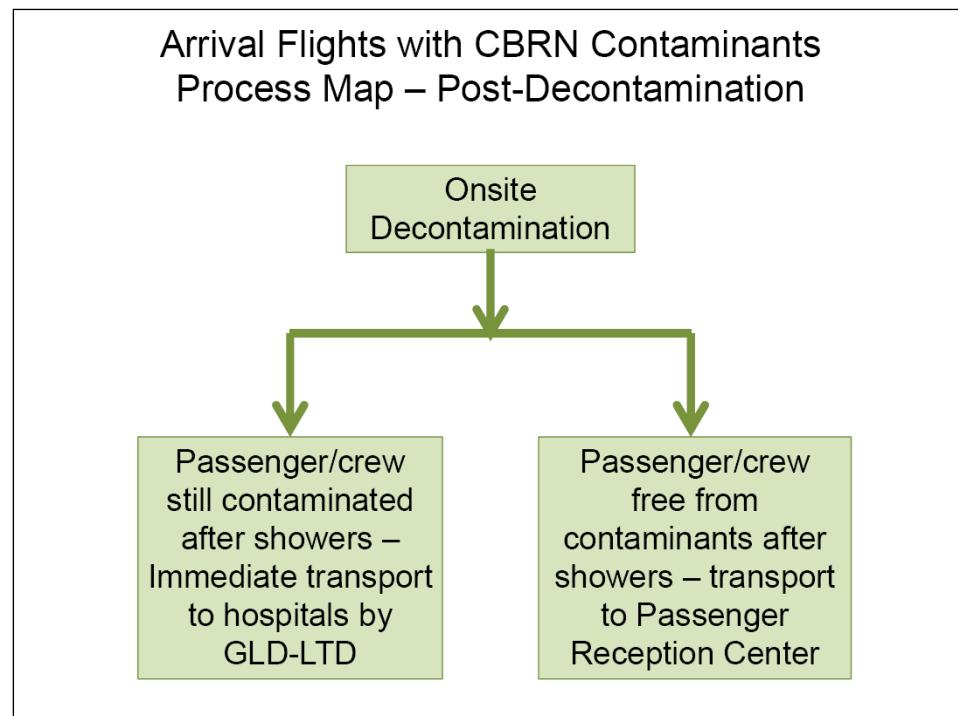
- a. As necessary, existing infectious diseases and CBRN decontamination procedures are to be used; and
- b. Actual decontamination methodologies of these areas will depend very much on the nature of the incident and the characteristics of the contaminant agent.

9. Media Management

- a. Early activation and coordination by the Combined Information Center (CIC) of the Information Services Department (ISD) is important; and
- b. At the airport operational level, the AEC will coordinate the incident's media management activities with the CIC.

D. Simplified Flow Diagrams Mapping Out Major Processes





END OF BCP – F4

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Business Continuity Manual

Business Continuity Plan: F5 e-Security Gates and Assisted Channels

		Signature	Revision	Effective Date
Updated By	Assistant General Manager Airport Security, SSBC	 Debbie Poon		
Reviewed By	Assistant General Manager BCP, SSBC	 Emily Chu	32	Jun 2023
Approved By	General Manager SSBC	 David Jea		

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A. BCP – F5. e-Security Gates and Assisted Channels Table of Contents

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B.	Malfunction of e-Security Gates / Assisted Channels	F5. 4
C.	Power Interruption	F5. 6

B. Malfunction of e-Security Gate / Assisted Channel

1.0 Failure Impacts

- Automated verification of passenger's travel documents and boarding passes may be interrupted.
- Passenger's token enrollment and validation may be interrupted.
- Passenger's tokens may not be used at the e-Security Gate.
- Passengers congestion at the security channels.

1. Scenario 1 – Failure of a single e-Security Gate / Assisted Channel at one Checkpoint

a. AVSECO-IAC Action:

- i. Instruct AVSECO-TAD to turn-off the machine;
- ii. Advise AVSECO-TAD to ensure the entrance doors / gate of the machine are in a closed position;
- iii. Instruct AVSECO-TAD to direct passengers to other available e-Security Gates / Assisted Channels;
- iv. Report any failure of e-Security Gates or Assisted Channels and equipment to the AA-ADM and AA-SOCC;
- v. Coordinate with the Command Post of AVSECO-TAD to request AA-SOCC and AA-FRT to repair the e-Security Gate/Assisted Channel;
- vi. Make log records / entries for the incident in the maintenance record book; and
- vii. Coordinate with the Command Post of AVSECO-TAD to make entry in the Fault Report Record.

b. ITD Action:

- i. Upon receiving report from AVSECO-IAC, AA-SOCC will conduct checks of the concerned e-Security Gates, and identify the on-site impact;
- ii. AA-SOCC will inform AVSECO-IAC on the fault impact, and coordinate with AVSECO-IAC for the on-site support arrangements;
- iii. AA-SOCC will coordinate with the AA-EGATE Maintenance Team to trouble shoot, and follow up on the fault of e-Security Gate/Assisted Channel until there is service resumption; and
- iv. In case of suspected cyber-attack, for further investigation, AA-SOCC will inform the Risk & Cybersecurity Section of AA-ITD.

c. TSI Action:

- i. Upon received service request from AA-SOCC, the AA-FRT will check the power supply to the e-Security Gate / Assisted channel.

2. Scenario 2 – Failure of a cluster of e-Security Gates at one Checkpoint

- a. AVSECO-IAC Action:
 - i. Instruct AVSECO-TAD to turn-off the machines;
 - ii. Advise AVSECO-TAD to ensure the entrance doors / gates of the machines are in the closed position;
 - iii. Instruct AVSECO-TAD to direct passengers to other available e-Security Gates / Assisted Channels;
 - iv. Report any failure of e-Security Gates or Assisted Channels and equipment to the AA-ADM and AA-SOCC;
 - v. Coordinate with the Command Post of AVSECO-TAD to request AA-SOCC and AA-FRT for repairs the e-Security Gates / Assisted Channels;
 - vi. Instruct AVSECO-TAD to have mobile PBS and / or re-deploy staff for security verification, as needed;
 - vii. Make log records / entries for the incident in the maintenance record book; and
 - viii. Coordinate with the Command Post of AVSECO-TAD to make entries in the Fault Report Record.
- b. ITD Action:
 - i. Upon receiving report from AVSECO-IAC, AA-SOCC will conduct checks on the concerned e-Security Gates and identify the on-site impact;
 - ii. AA-SOCC will inform AVSECO-IAC on the fault impact and coordinate with AVSECO-IAC for on-site support arrangements;
 - iii. AA-SOCC will coordinate with the AA-EGATE Maintenance Team to trouble shoot, and follow up on the fault of e-Security Gates / Assisted Channels, until service resumption; and
 - iv. In case of suspected cyber-attack, for further investigation, the AA-SOCC will inform the Risk & Cybersecurity Section of the AA-ITD.
- c. TSI Action:
 - i. Upon received service request from AA-SOCC, the AA-FRT will check the power supply to the e-Security Gates / Assisted channels.
- d. TOD Action:
 - i. Upon receiving the notification from AVSECO-IAC, the AA-TOD will coordinate with the contractor and AVSECO-TAD to set up crowd management facilities and deploy adequate manpower for crowd control, as needed.

3. Scenario 3 – Failure of all e-Security Gates / Assisted Channels at one Checkpoint

- a. AVSECO-IAC Action:
 - i. Coordinate with the Command Post of AVSECO-TAD to immediately to call the NEC maintenance hotline, and request AA-

- SOCC for urgent repair of the identified e-Security Gates / Assisted Channels;
 - ii. Alert: IAC-TOD; AVSECO-AED Ops I; SM Ops I-AC; SM Ops I-SS; and the DSM;
 - iii. Request IAC-TOD to alert relevant Airlines/GHAs;
 - iv. Inform APCR, ASU, and IMMD;
 - v. AVSECO-DSM to alert the AA-SSBC and to liaise with AA-ADM on diverting passengers to other functional Checkpoints, as needed;
 - vi. Instruct AVSECO-TAD to arrange adequate channels, and divert passengers to other functional Checkpoints for security verification;
 - vii. For security verification, instruct AVSECO-TAD to deploy, at the designated channels, adequate mobile PBS;
 - viii. For crowd management and the security verification of passengers, instruct AVSECO-TAD to re-deploy adequate staff;
 - ix. Advise AVSECO-TAD to ensure the entrance doors / gates of any e-Security Gates / Assisted Channels that are not in use for passenger security verification are in the closed position;
 - x. Make log records / entries of the incident in the maintenance record book; and
 - xi. Prepare Daily Report for both the HKIA and IAC SITREPs.
- b. ITD Action:
- i. Upon receiving a report from AVSECO-IAC, the AA-SOCC will conduct checks of the concerned e-Security Gates, and identify the on-site impact;
 - ii. AA-SOCC will inform AVSECO-IAC of the on-site impact and coordinate with AVSECO-IAC for on-site support arrangement;
 - iii. AA-SOCC will coordinate with the AA-EGATE Maintenance Team to trouble shoot, and follow up on the fault of e-Security Gates / Assisted Channels, until service resumption; and
 - iv. In case of a suspected cyber-attack, for further investigation, the AA-SOCC will inform the Risk & Cybersecurity Section of AA-ITD.
- c. TSI Action:
- i. Upon a service request from AA-SOCC, the AA-FRT will check the power supply to the e-Security Gates / Assisted channels.
- d. TOD Action:
- i. Upon receiving the notification from AVSECO-IAC, the AA-TOD will coordinate with the contractor and AVSECO-TAD to setup crowd management facilities and deploy adequate manpower for crowd control, as needed.

C. Power Interruption

1.0 Failure Impacts

- Automated verification of passenger's travel documents and boarding passes may be interrupted.

- Passenger's token enrollment and validation may be interrupted.
- Passenger's tokens may not be used at the e-Security Gates.
- Passengers congestion at the security channels.

1. Scenario 1 – Affecting a cluster of e-Security Gates at one Checkpoint

a. AVSECO-IAC Action:

- i. Instruct AVSECO-TAD to acknowledge the UPS Discharge message on a handheld device (iPhone);
- ii. Instruct AVSECO-TAD to locate which e-Security Gates have power interruption;
- iii. Advise AVSECO-TAD to ensure no passengers are trapped by the concerned e-Security Gates;
- iv. Instruct AVSECO-TAD, at the power interrupted e-Security Gates, to complete the security verification for the concerned passengers;
- v. Inform AVSECO-TAD to turn-off the machines whilst the UPS is still providing power;
- vi. Advise AVSECO-TAD to ensure the entrance doors of the machines are in the closed position;
- vii. Instruct AVSECO-TAD to direct passengers to other available e-Security Gates / Assisted Channels;
- viii. Coordinate with the Command Post of AVSECO-TAD to inform IAC-TOD and request attendance of the NEC staff, AA-FRT and AA-SOCC for repairs to the e-Security Gates / Assisted Channels;
- ix. Instruct AVSECO-TAD to have adequate mobile PBS on standby, and / or re-deploy adequate staff for the passengers security verification, as needed;
- xii. Make log records / entries for the incident in the maintenance record book; and
- ix. Coordinate with the Command Post of AVSECO-TAD to make entries in the Fault Report Record.

b. TSI Action:

- i. AA-FRT will trouble shoot, and resume the power supply to the identified e-Security Gates / Assisted Channels. The provision of a temporary power supply will be arranged, if necessary.

c. ITD Action:

- i. Upon receiving a report from AVSECO-IAC, the AA-SOCC and AA-EGATE Maintenance Team will coordinate with the AA-FRT on-site to trouble shoot, and follow up on the power interruption, until service resumption.

d. TOD Action:

- i. Upon receiving the notification from AVSECO-IAC, the AA-TOD will coordinate with the contractor and AVSECO-TAD to setup crowd management facilities, and deploy adequate manpower for crowd control, as needed.

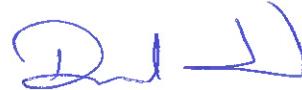
2. Scenario 2 – Affecting all e-Security Gates / Assisted Channels at one Checkpoint
 - a. AVSECO-IAC Action:
Refer to Section B Scenario 3.
 - b. TSI Action:
 - i. AA-FRT will trouble shoot, and resume the power supply to the identified e-Security Gates/Assisted Channels. The provision of a temporary power will be arranged, if necessary.
 - c. ITD Action:
 - i. Upon receiving the report from AVSECO-IAC, the AA-EGATE Maintenance Team will coordinate with the AA-FRT on-site to trouble shoot, and follow up on the power interruption at corresponding checkpoint, until service resumption.
 - d. TOD Action:
 - i. Upon receiving the notification from AVSECO-IAC, the AA-TOD will coordinate with the contractor and AVSECO-TAD to setup crowd management facilities, and deploy adequate manpower for crowd control, as needed.

End of BCP – F5

Business Continuity Manual

Business Continuity Plan: G1

Public Health & Pandemics

		Signature	Revision	Effective Date
Updated By	Manager BCP, SSBC	 Mandy Hui		
Reviewed By	Assistant General Manager BCP, SSBC	 Emily Chu	33	Aug 2023
Approved By	General Manager SSBC	 David Jea		

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BCP – G1. Public Health Emergencies Table of Contents

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C	HKIA Stepped Response Plan	G1. 7
D	Airport Authority HKG Register of Significant Public Health Risks	G1. 14
E	AA Daily Review Of Suspected Public Health Cases	G1. 17
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G	AA Staff Handling Procedures for Public Health Cases	G1. 19
H	AA Staff Handling Procedures Flowchart	G1. 21

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A. Introduction

1. The Department of Health:
 - a. Responsible for monitoring the development of the outbreak of serious infectious disease locally and overseas.
 - b. Will decide upon the precautionary and quarantine measures that have to be taken to prevent the introduction and spread of such a disease into Hong Kong.
 - c. Will decide when these measures will be initiated and rescinded.
2. If the measures to be taken involve aircraft, air passengers, air-crew and/or cargo arriving from the port(s) concerned, the Director of Health will convene meeting(s) with the Airport Authority (AA), airlines/passenger & passenger handling agents, ramp handling agents and various operators concerned, Immigration Department, Customs and Excise Department, Hong Kong Police Force, Auxiliary Medical Service, Fire Services Department, Food and Environmental Hygiene Department, and / or other relevant departments as necessary to coordinate the action(s) to be taken.
3. The Airport Authority:
 - a. Responsible for disseminating information to the airport community for any updates, news, and advice by the Department of Health.
 - b. Develop contingency and response plan to ensure the level of response is commensurate with the risk involved.
 - c. Coordinate health measures and risk mitigations to be implemented at the Hong Kong International Airport (HKIA) to support and facilitate the Government's anti-pandemic strategy and initiatives.

B. AA Preparedness Planning

1. HKIA is an integral part of Hong Kong's aviation sector and travel industry as well as being an integral part of the overall Special Administrative Region of Hong Kong.
2. It is of utmost importance for the AA to have a comprehensive preparedness and response plan to protect the community at large in addition to protecting passengers as well as the tens of thousands of staff working for companies based at the HKIA from public health risks such as influenza and COVID-19 pandemic.
3. The AA also works in partnership with the Port Health Division to prevent the import and / or export of health risks via HKIA.
4. As such, the AA has developed the HKIA Stepped Response Plan to correspond with the Government's plan.
5. The HKIA Stepped Response Plan aims to :
 - a. Safeguard the health of all airport users; i.e., passengers, airport staff, air crew and airport users;
 - b. Be compatible with the Government's three-tier response level;
 - c. Establish a reporting scheme among business partners on suspected, confirmed and close contact cases;
 - d. Ensure appropriate health screening / disinfection system is in place to prevent import and / or export of active cases; and
 - e. Determine effective response measures to be undertaken for each response level.

C. HKIA Stepped Response Plan

1. The HKIA Stepped Response Plan will tie in with the three-tier response level under the Government's Preparedness and Response Plan for Novel Infectious Disease of Public Health Significance.
2. The Airport Authority will implement the health measures according to the response level and/or any developed plan / measures issued at any given time by the Government.
3. Everyday preventive health measures and good personal hygiene measures should include the following :
 - a. Vaccination and/or testing
 - b. Staff education
 - c. Maintain personal and environmental hygiene
 - d. Maintain adequate supply of personal protective equipment for staff e.g. masks, face shield, protective gown, alcohol swabs, etc.
 - e. Provide adequate facilities and cleaning materials for disinfection
 - f. Stockpile anti-viral equipment with health care providers

4. The AA Stepped Response Plan includes:

	Response Measures	Alert Response Level	Serious Response Level	Emergency Response Level	Owner
1.	Maintain close contact with the Department of Health	√	√	√	SSBC/TOD/LD
2.	Passengers temperature screening and health declaration	√	√	√	TOD/LD
3.	Facilitate Government's arrival testing and quarantine measures	---	---	√	All Departments
4.	Set up designated zones/facilities/teams for handling passengers/flights to/from high risk countries for better segregation	---	---	√	TOD/LD/AD/ABD
5.	Airport staff and visitors temperature monitoring	---	√	√	All Departments
6.	All staff to wear proper personal protective equipment during work	---	√	√	All Departments
7.	Provide adequate equipment for protecting frontline staff and passengers as appropriate	---	√	√	All Departments
8.	Step up cleaning and disinfection of AA	√	√	√	Admin/TOD/LD/TSI/TSS

	Response Measures	Alert Response Level	Serious Response Level	Emergency Response Level	Owner
	offices and public installations/equipment where appropriate				
9.	Restrict access to critical operation control centres	---	√	√	AOFP/TOD/LD/AD/ABD/TSI/TSS/ITD/CWC/CWM/TRD
10.	Access registration for visitors to AA offices and control centres	---	---	√	Admin/AOFP/TOD/LD/AD/ABD/TSI/TSS/ITD/CWC/CWM/TRD
11.	Staggered work deployment to avoid cross contamination	---	√	√	All Departments
12.	Split team, operations and/or separate seating locations to retain team resilience	---	---	√	All Departments
13.	Minimize large meetings, adopt online meeting method	---	√	√	All Departments
14.	Maintain social distancing and enforce physical distancing throughout the airport	---	√	√	All Departments
15.	Case reporting	---	√	√	All Departments

5. The response measures items listed in the table above will be undertaken subject to:
 - a. the direction of the Department of Health; and/or
 - b. the final decision by the departments concerned; and/or
 - c. the disease and its development status concerned.
6. Maintain close contact with the Department of Health
 - a. AA shall maintain a close liaison with the Department of Health on general health policy and measures to be implemented at the HKIA.
 - b. On the operation level, the Integrated Airport Centre (IAC) shall liaise with the Port Health Division of the Department of Health to facilitate the implementation of health measures in day-to-day operation and report on any abnormal cases.
7. Passengers temperature screening and health declaration
 - a. The Airport Authority has promulgated a procedure called “Quarantine Handling” (Procedure No. TLPM/036).
 - b. The procedure stipulates the implementation of anti-infectious disease measures for passengers departing, arriving and transiting/transferring at HKIA.
 - c. Similar procedures will be adopted for handling of the quarantine health measures for similar flu viruses.

- d. The procedure stipulates the requirement for passengers using HKIA to undergo temperature screening, either by handheld infrared detector or infrared screening system as primary screening, to be conducted by the executive agent appointed by the Department of Health as per its Directive.
 - e. Passengers failing the temperature check will be referred to a medical post for further examination.
 - f. Departing and arriving passengers shall complete a Health Declaration Form as may be required by the Department of Health for purpose of quarantine, contact tracing etc..
 - g. Set up designated areas for passengers arriving from countries with active community transmission, perform temperature check and examination. Designated entry for passenger buses, crew buses, parking stands, and baggage reclaim belts will also be prepared.
8. Facilitate Government's arrival testing and quarantine measures
 - a. Special quarantine measures to minimize the risk of importation and spreading of the virus/disease infection in the community.
 - b. In the event all arrival passengers are required by law for compulsory testing and quarantine, specimen collection stations may be required to be set up at HKIA to provide testing for passengers and air crews before they can proceed with immigration and customs clearance.
 - c. An isolation area should be set up for holding of person who is tested positive or identified as close contact of a tested positive person before he/she is sent to hospital / quarantine camp and an exclusive route for transporting the person to hospital / quarantine camp is to be identified.
 9. Set up designated zones, facilities or teams for handling passengers/flights to/from high risk countries for better segregation, the following measures might be in place where appropriate:
 - a. Set up designated zones, facilities and/or teams such as security screening, food and beverage areas, restrooms, waiting areas for transit/transfer passengers (including stranded passengers) to/from countries with active community transmission.
 - b. Set up designated areas for the stranded passengers who from high risk countries announced by the Centre for Health Protection.
 - c. Segregate the compartment of Automated People Mover (APM) or deploy separate buses for low risk passengers / staff.
 - d. Separate the resting, dining area and changing room for the staff who involved in passenger servicing or flight handling at different risk level, works at operation control center and patrol team.
 - e. Subject to the situation, designated zones / teams arrangement should also consider to be set up for segregated handling of passenger's flights from different risk level of places.
 - i. For passengers who travels from high risk places:
 - Assign the flights at designated zone.
 - Separate the Customs, Immigration, Quarantine and transfer facilities, if possible, also separate the testing handling procedures for arriving passengers and staff.

- Separate dining areas, restrooms and waiting areas for passengers from high risk places.
 - Assign designated in-terminal transport for passengers from high risk places and carry out disinfection after each trip.
- ii. For staff who works at high risk flights' zones:
- Split staff into two teams to handle passengers / flights exclusively for high risk places.
 - Separate resting, dining, changing and briefing areas for two staff teams.
 - Separate the staff egress/ingress and transport during their work shift.
 - Not allowed to mix two staff teams during their work shift.
10. Airport staff and visitors temperature monitoring
- a. Airport staff are encouraged to have their temperature taken before reporting for duty at the airport.
 - b. Staff who has a temperature of over 37.5°C should not report for duty but immediately seek medical advice.
 - c. Detail of the arrangement is stipulated in the procedure named "Quarantine Handling" (Procedure No. TLPM/036).
 - d. Set up temperature screening points/equipment to monitor staff and visitors' entry to HKIA towers and terminal buildings.
 - e. Employees with flu symptoms to self-quarantine and seek medical attention from doctors or hospitals.
11. All staff to wear proper personal protective equipment during work
- a. Staff must wear surgical masks and/or proper personal protective equipment at work or as when required / advised by the Government to prevent transmission of respiratory viruses. In case face-to-face interaction is unavoidable, staff might be required to wear face shield in addition to surgical mask and maintain 1.5m social distance from passenger / air crew as per Government's advice.
 - b. Frontline and kitchen staff working in restaurants to wear surgical masks at work.
12. Provide adequate equipment for protecting frontline staff and passengers as appropriate for different response level :
- a. Surgical mask
 - b. Alcohol swab
 - c. Disposal gloves
 - d. Eye protection (e.g. goggles, face shield)
 - e. Isolation gowns, caps and shoe covers
 - f. Disinfecting gel / alcohol based hand sanitizers at strategic locations with busy flow in the Terminals and concourses, and around high-touch surfaces and communal facilities
 - g. Disposable paper towel in toilets

- h. Protective screens at check-in counters, ticketing desks, boarding gates and customer service counters where passengers interact directly with staff
 - i. Alcohol-based sanitizers and serving utensils in the dining areas
- 13. Step up cleaning and disinfection of AA offices and public installations/equipment where appropriate:
 - a. Increase cleaning and disinfection activities / frequency including:
 - i. Offices, duty staff changing rooms, staff resting area, office toilets, meeting rooms and office lift halls
 - ii. Carpets
 - iii. Desks and office appliances
 - iv. Air-filters
 - v. Air-conditioning systems
 - vi. Indoor ventilation systems
 - b. Thorough cleaning to common-use operating equipment in the center will be conducted between shifts.
 - c. Deploy vacuum-cleaning and UVA disinfection robots at high flow area and toilets.
 - d. Adjust ambient air temperature and strengthen air ventilation.
 - e. Remove potential transmission media e.g. removal of candies, closure of drinking fountains.
 - f. Set up sterilization teams to support airport tenants.
 - g. Suspend auto-flush function in public toilets.
 - h. Disinfect APM, passenger and crew buses after each trip.
 - i. Step up pest control measures:
 - i. Pest surveys shall be increased to a frequency appropriate for different specific pests.
 - ii. Pest elimination treatment shall also be performed if infestation is detected.
 - iii. Good housekeeping practices shall be ensured and monitored to prevent pest infestation.
 - iv. Airport business partners shall be advised to step up their pest control measures as a parallel action.
- 14. Restrict access to critical operation control centers
 - a. IAC and critical operation control centers shall restrict access to essential personnel only so that the risk of virus introduced to staff in these key facilities is reduced.
 - b. Minimize visits, training and non-necessary access of personnel.
- 15. Access registration for visitors to AA offices and control centres
 - a. Only approved and registered visitors are allowed to enter AA offices and control centres.
- 16. Staggered work deployment to avoid cross contamination

- a. Patrol staff need not be deployed to work in the operation control center during each shift.
 - b. Staff flexible work hours considered to avoid using public transports during peak congestion hours.
 - c. Special work from home arrangement for non-essential service staff, for specific periods and duration, subject to the condition that direct and indirect services and development work of the airport will not be affected.
17. Split team, operations and/or separate seating locations to retain team resilience
- a. Split operations may be considered whereas backup sites may be activated and staffed by two separate duty teams;
 - b. Split office team into at least 2 groups. One of the group to remain at current location and allow more spatial separation between staff. Deploy other group(s) to other areas (e.g. backup offices) and swapping of seating across different office floors.
 - c. Staff are assigned to workstations that are more spatially spread out or alternate with another departments.
18. Minimize large meetings, adopt online meeting method
- a. Minimize large meetings and shorten meeting duration to avoid cross contaminations or exposures.
 - b. Conduct meetings via online platform or in open area if practical.
19. Maintain social distancing and enforce physical distancing throughout the airport
- a. Maintain social distancing for at least 1.5 metres or as appropriate.
 - b. Prohibit group gatherings with group size larger than the size allowed by the government in all public areas.
20. Case reporting
- a. All department heads or their designated representatives shall report to the Terminals & Landside Duty Manager (email: airportamduty1@hkairport.com) for any confirmed / suspected / close contact cases of their staff / key contractors / service providers under their respective functional / operational areas.
 - b. A report template is attached in Item F.
 - c. The report will be collated and reviewed by the Airport Duty Manager (ADM) and senior management of the AA to decide if there is any impact to airport operation so that relevant contingency measures could be implemented.
 - d. Other airport business partners are required to notify the Terminals & Landside Duty Manager (email: airportamduty1@hkairport.com) direct of the same information and to adopt measures to disinfect the premises if necessary.
21. Staff education

- a. AA will promulgate to the airport community the latest information on infectious diseases, and work hand in hand with airport business partners to educate their staff on health information and advice through any of the following means :
 - i. HKIA News
 - ii. Health talks / seminars / training
 - iii. Airport circulars
 - iv. HKIA Operations Portal
 - v. Emails / briefings / meetings
 - vi. Videos
22. Implementation of the Stepped Response Plan
 - a. The plan has identified process owners for each response measure.
 - b. The ADM will inform the department heads (or deputies in case the department heads cannot be contacted) on the alert level issued by the Government.
 - c. Owners of the response measures are required to implement the measures as laid down in this Plan or other measures as advised, according to the alert level given by the Port Health Division.
 - d. When the response levels at a graded risk of the pandemic affecting HKIA and its health impact on the Hong Kong airport community, the respective Emergency Response Level will be activated by the Department of Health.
 - e. Port Health Division may amend certain measure's implementation as they see fit in response to changing situations.

D. Airport Authority HKG Register of Significant Public Health Risks

Identified Risks	Possible Occurrence within 12 Months / 5 Years	Legal and other Requirements	Departmental Responsibilities	Active Risk Management Initiatives
1. Infectious disease outbreak within HKG SAR – risks up to & including temporary airport closure	12 months = Low 5 years = Medium	<ul style="list-style-type: none"> - Port Health Division liaison - Centre for Health Protection (CHP) liaison - Department of Health / Health Bureau liaison - Prevention and Control of Disease Ordinance CAP 599 - Public Health and Municipal Services Ordinance CAP 132 	<ul style="list-style-type: none"> - TOD = T1 + T1S + T1M & relevant tenants and contractors coordination - LD = SkyPier Terminal tenants & relevant contractors coordination - TSI/TSS = Technical services & relevant contractors coordination - CWC/CWM = Capital work services & relevant contractors coordination - TRD = TRD work services & relevant contractors coordination - AD = Airfield & relevant franchisees and contractors coordination - ABD = Baggage Hall, APM & relevant franchisees and contractors coordination - CAF = Media management plan involving all HKIA stakeholders - ALD = Franchisees (cargo etc.) coordination - LPAF = Franchisees (air caterers etc.) coordination - RAD = Retailers & terminal buildings F&B franchisees coordination - ITD = IT applications / mainframes support & relevant contractors coordination - HRD/Admin = Staff HR issues, HKIA Office Contingency Plan - SSBC = AEC operations - AOFP = IAC operations 	<ul style="list-style-type: none"> - Regular review and revision of EPM, BCM and operation procedures - Regular coordination with Port Health Division, CHP - Implementation of Annual Preparedness Schedule

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2. Passenger(s) suspected of having an infectious disease onboard inbound aircraft	12 months = Medium	<ul style="list-style-type: none"> - Port Health Division liaison - Centre for Health Protection (CHP) liaison - Department of Health / Health Bureau liaison - Prevention and Control of Disease Ordinance CAP 599 - Public Health and Municipal Services Ordinance CAP 132 	<ul style="list-style-type: none"> - TOD = T1 + T1S + T1M & relevant tenants and contractors coordination - LD = SkyPier Terminal tenants & relevant contractors coordination - TSI/TSS = Technical services & relevant contractors coordination - AD = Airfield & relevant franchisees and contractors coordination - ABD = Baggage Hal, APM & relevant franchisees and contractors coordination - CAF = Media management plan involving all HKIA stakeholders - ALD = Franchisees (cargo, etc.) coordination - LPAF = Franchisees (air caterers, etc.) coordination - RAD = Retailers & terminal buildings F&B franchisees coordination - ITD = IT applications / mainframes support & relevant contractors coordination - HRD/Admin = Staff HR issues, HKIA Office Contingency Plan - SSBC = AEC operations - AOFP = IAC operations 	<ul style="list-style-type: none"> - Regular review and revision of EPM, BCM and operation procedures - Regular coordination with Port Health Division, CHP - Implementation of Annual Preparedness Schedule
	5 years = Medium			

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3. Passenger(s) suspected of having an infectious disease onboard inbound cross-border ferry	12 months = Low	<ul style="list-style-type: none"> - Port Health Division liaison - Centre for Health Protection (CHP) liaison - Department of Health / Health Bureau liaison - Prevention and Control of Disease Ordinance CAP 599 - Public Health and Municipal Services Ordinance CAP 132 	<ul style="list-style-type: none"> - TOD = T1 + T1S +T1M & relevant tenants and contractors coordination - LD = SkyPier Terminal tenants & relevant contractors coordination - TSI/TSS = Technical services & relevant contractors coordination - AD = Airfield & relevant franchisees and contractors coordination - ABD = Baggage Hall, APM & relevant franchisees and contractors coordination - CAF = Media management plan involving all HKIA stakeholders - ALD = Franchisees (cargo, etc.) coordination - LPAF = Franchisees (air caterers, etc.) coordination - RAD = Retailers & terminal buildings F&B franchisees coordination - ITD = IT applications / mainframes support & relevant contractors coordination - HRD/Admin = Staff HR issues, HKIA Office Contingency Plan - SSBC = AEC operations - AOFP = IAC operations 	<ul style="list-style-type: none"> - Regular review and revision of EPM, BCM and operation procedures - Regular coordination with Port Health Division, CHP - Implementation of Annual Preparedness Schedule
	5 years = Medium			

E. AA Daily Review Of Suspected Public Health Cases

1. Vigilant monitoring and assessment of developing public health cases (e.g. SARS, AI, HSI and COVID-19) are important to daily operations and its future planning requirements when in the midst of a public health outbreak.
2. To facilitate the communications of the public health situation and the suspected/confirmed/close contact cases at the airport, the Executive Director, Airport Operations (EDAO), or his/her deputy, will communicate with ADM and department heads of AD, ABD, SSBC, TOD, LD, TSI and TSS via a social media platform (e.g. WhatsApp) every day to review the situation and to prepare for next day operation as appropriate.
3. To facilitate timely reporting of all cases, actions set out below are to be undertaken by AA :
 - a. The Terminals & Landside Duty Manager (TLDM) will collect updates of any suspected/confirmed/close contact cases reported by the AA departments and airport organizations.
 - b. All department heads or their designated representatives shall inform the TLDM daily for any suspected/confirmed/close contact cases of key contractors / service providers under their respective functional / operational areas by returning the form as attached under Item F.
 - c. The TLDM is responsible to consolidate the above information to the ADM for his/her onward reporting to EDAO or his/her deputy on a daily basis.
 - d. ADM would report the situation and all essential information to senior management in the IAC daily report and disseminate the report by e-mail.
 - e. This report would include, but not limited to the following:
 - i. Number of new suspected, confirmed and close contact cases
 - ii. Actions that have been taken by the affected companies
 - iii. Possible impact to operations
 - iv. Activation of any necessary contingency plans
 - f. All suspected/confirmed/close contact cases of AA staff shall be reported by respective department head to HRD for record and immediate follow up.
4. For any suspected/confirmed/close contact cases at HKIA which are make known to Port Health Division (PHD), the follow steps should be adopted:
 - a. Staff from PHD will contact IAC-TOD or respective organization for updates on the confirmed cases related to any airport staff.
 - b. Respective departments/organizations of the airport community shall report all confirmed / suspected / close contact cases to ADM or via TLDM. (see also item E, paragraph 3b)
 - c. TLDM or his/her deputy will then approach relevant departments/ organizations for details and record the cases accordingly.

F. Public Health Cases Reporting Form

To: Terminals & Landside Duty Manager (TLDM)
Terminal Operations Department, Airport Authority

Email: airportamduty1@hkairport.com

Date: (dd/mm/yyyy)

From:

Department/ Organization:

Tel:

Infectious Disease: () [name of disease]

Company	Case Description	Close Contact (✓)	Suspected Case (✓)	Confirmed Case (✓)	Actions Taken / Follow-Up Action	Operational Impact
e.g. XYZ Co.	<ul style="list-style-type: none">Staff "A" visited doctor on dd/mm/yyyy suffering from feverLast working date at airport was dd/mm/yyyyThe staff visited XX catering outlet / terminal facilities at HKIA in past 7 days				Rest room A disinfected at xxxxhrs dd/mm/yyyy Rest room A closed until further notice.	

Remarks: "Close Contact" / "Suspected Case" / "Confirmed Case" to be reported after identification by the Department of Health

G. AA Staff Handling Procedures for Public Health Cases

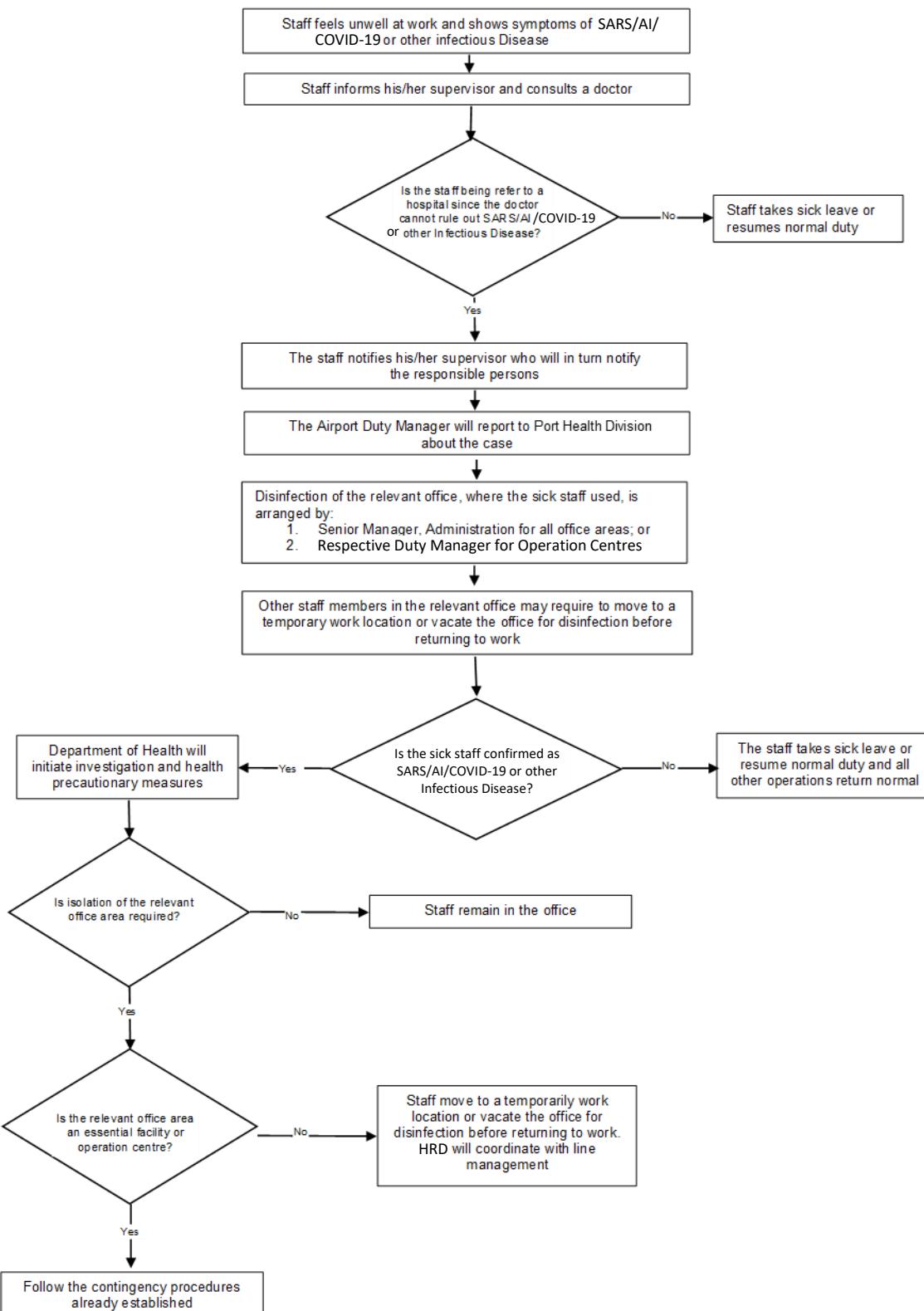
1. If a staff member feels unwell while at work and shows symptoms of infection, the staff member must immediately inform his/her supervisor and consult a doctor.
2. If the doctor cannot confirm whether it is a true case after diagnosis and refers the staff member to the hospital, the staff must notify his/her supervisor immediately and follow the doctor's instruction.
3. If a staff member who has been in close contact with a person suffering from infectious disease (such as SARS, COVID-19) and/or identified by Department of Health (DoH) / Port Health Department (PHD) / Centre for Health Protection (CHP) as a close contact person, the staff member shall also report to his/her direct supervisor, self-isolated and/or as per DoH/CHP instructions.
4. The supervisor shall alert the following responsible persons :
 - a. Terminals & Landside Duty Manager (TLDM) on behalf of ADM
 - b. Manager, HR Relationship Management
 - c. Senior Manager, Administration
5. ADM will be the contact point for PHD.
6. PHD will be advised of the case (PHD contact tel: 2182 1302) and will be asked for advice on office disinfection materials to be used, methodology and extent of disinfection of the relevant office area and necessary health precautionary measures.
7. To disinfect the affected areas, cleaning instructions will be issued as follows :

AA Office Areas	By Senior Manager, Administration
Operation Centres	By respective Duty Manager

8. Subject to the advice of DoH and office space availability, other staff members in the affected office area may be required to move to a temporary work location as precautionary measures or vacate for a certain period before returning to the disinfected area.
9. HRD will coordinate with line management to communicate detailed arrangements to the affected staff members.
10. If the staff fallen sick is subsequently confirmed to have contracted the infection, DoH will initiate necessary investigation and health precautionary measures, such as surveillance and prescription of prophylaxis, for other staff members working in the relevant office area.
11. If deemed necessary or advised by DoH, the relevant office area will be isolated pending clarification.

-
- 12. ADM will maintain close contact with PHD so that when the DoH decides to cease isolation, ADM will inform Senior Manager, Administration to resume occupancy of the relevant office area.
 - 13. IAC and HRD will be at the center of information flow.
 - 14. A flow chart illustrating the process flow above is attached in item H.

H. AA Staff Handling Procedures Flowchart



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Business Continuity Manual

Business Continuity Plan: H1

HKIA Post Incident Recovery Checklist

		Signature	Revision	Effective Date
Updated By	Manager BCP, SSBC	 Mandy Hui		
Reviewed By	Assistant General Manager BCP, SSBC	 Emily Chu	34	Nov 2023
Approved By	General Manager SSBC	 David Jea		

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BCP – H1. HKIA Post – Incident Recovery Checklist

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B	HKIA Recovery Checklist	H1.5

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A. POST INCIDENT RECOVERY CHECKLIST

1.0 Introduction

From time to time, the daily operation of HKIA may be disrupted by incidents due to various reasons e.g. inclement weather, system failure etc. After the incident is over and HKIA is returning to normal operation, the HKIA Recovery Checklist will be used to ensure all operations are restoring to normal in a systematic and efficient manner.

B. HKIA RECOVERY CHECKLIST

1.0 Terminal Operations Department

Critical Functions and Operational Areas	Status
1. Landside	a. Level 7 check in area
	b. Up-ramp to Level 7
	c. L6 transition deck
	d. Toilet
	e. Landside Trolley
	f. Amenities
	g. Catering and retail outlets
2. Airside (including Sky Bridge)	a. L6 Departure gates
	b. L6 Airline Services Desk
	c. Level 5 Arrival Level
	d. Transfer Area E1, E2, W1
	e. Sky Bridge Departures Level
	f. Sky Bridge Arrivals Level
	g. Toilet

	h. Airside Trolley	
	i. Amenities	
	j. Catering and retail outlets	
3. T1 Satellite Concourse & T1 Midfield Concourse	a. Departure & Arrival gates	
	b. Airline Services Desk	
	c. Toilet	
	d. Airside Trolley	
	e. Amenities	
	f. Catering and retail outlets	
4. FIDS Operations	a. Flight information availability	

2.0 Landside Department

	Critical Functions and Operational Areas	Status
1. Land Transport	a. AEL	
	b. MTR	
	c. Buses	
	d. Taxi	
	e. Cross-boundary coaches/limo	
	f. Hotel coaches	
	g. Crew Transport	
	h. Residents' Coach	
	i. Roads	
	j. Carpark	
2. SkyPier Terminal	a. Pontoon	
	b. Crane	
	c. Container Handling System	
	d. CUTE	
	e. Security screening machines	

	f. Bonded Road	
	g. ATS/ATB access gate	
	h. ATS/ATB ticketing counters at T1 E2	
	i. ATS/ATB boarding equipment	
	j. Berthing Control Equipment	
	k. Check-in counters	
	l. Toilets	
	m. Bonded Bus pick up bays	
	n. Bonded Bus drop off bays	
	o. BBMS	
	p. Bonded Vehicular Bridge	
	q. AA Booth	
	r. Drop-arm	
	s. Electricity Charging Facilities	

3.0 Airfield Department

Critical Functions and Operational Areas		Status
1. North Runway & Associated Taxiways	a. Inspection conducted at _____	
	b. AGL meeting ICAO requirement	
	c. Pavement serviceable	
2. South Runway & Associated Taxiways	a. Inspection conducted at _____	
	b. AGL meeting ICAO requirement	
	c. Pavement serviceable	
3. Flight Rescheduling Control System	a. Requirement of flight rescheduling control activation	

4. Stand Allocation	a. Passenger stand availability	
	b. Cargo stand availability	
	c. Contingency parking activated	
5. Airside Buses	a. Buses availability	
	b. Drivers availability	
6. Apron Operations	a. Airfield vehicles availability	
	b. Airbridge availability	
	c. Aviation fuel supply	
	d. Dollies circulation and availability	
7. Operators Status	a. Ramp handling operators	
	b. Line maintenance operators	
	c. Refuellers	
	d. Caterers	
	e. Cargo terminal operators	
8. Worksite	a. Inspections completed at _____	

4.0 APM and Baggage Department

Critical Functions and Operational Areas	Status
1.T1 Baggage Handling System	a. Level 7 Collector lines
	b. Level 6 Delivery lines
	c. Direct Feed lines
	d. X-ray Machines
	e. Transfer Feed lines
	f. Primary Sorters
	g. Secondary Sorters
	h. Early Bag Storage area
	i. T1A Early Bag Storage rack
	j. Make-up Laterals

	k. Departure Carousels	
	l. Late and Problem Area	
	m. Arrival Reclaim Belts	
	n. Arrival Reclaim Carousels	
	o. Cristplant Sorter Controller (CSC)	
	p. Supervisor Control And Data Acquisition System (SCADA)	
	q. Management Information Control System (MICS)	
	r. Sort Allocation Computer (SAC)	
	s. Reclaim Belt Allocation System (RBAS)	
	t. Bag Manager System (BMS)	
	u. Automated Arrival Bags Delivery (AABD)	
	v. Baggage Base Information Technology (BBIT)	
	w. AET and Tractor Operation	
	x. Building Management	
2. T1 Midfield Concourse	a. T1 Midfield Baggage Transfer Facilities	
	b. Building Management	
3. Remote Transfer Facility	a. Baggage Transfer Facilities	
	b. Building Management	
4. SkyPier Terminal	a. Baggage Handling System	
	b. AET and Tractor Operation	
	c. Electronic Common Baggage Clearance Platform (eCBCP)	
5. APM	a. Terminal 1 Line	
	b. SkyPier Terminal Line	
	c. Route Recovery Line	

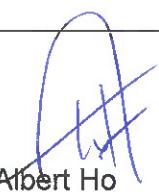
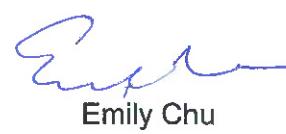
End of BCP – H1

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Business Continuity Manual

Business Continuity Plan: H2

Prolonged Red Lightning Warning

		Signature	Revision	Effective Date
Updated By	Assistant General Manager AD	 Albert Ho		
Reviewed By	Assistant General Manager BCP, SSBC	 Emily Chu	32	Jun 2023
Approved By	General Manager SSBC	 David Jea		

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BCP – H2. Prolonged Red Lightning Warning Table of Contents

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B	Parking Of Inoperative Aircraft Without Interference To Normal Airfield Operations	H2.6
C	Full Apron Contingency Procedure	H2.7
D	Interface With Others	H2.8

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A. INTRODUCTION

1.0 Regular Apron Capacity

There are altogether **236** aircraft parking stands available for aircraft ground services or maintenance at Chek Lap Kok (CLK).

*Passenger Apron Frontal Stands	77
*Passenger Apron Remote Stands	42
*Cargo Apron	34
*West Cargo Apron	35
Maintenance and Long Term Parking Apron	21
Temporary Parking Stands	27

***No. of Operational Parking Stands: 188**

1.1 Temporary Parking Stands

The available temporary parking stands and their corresponding condition of use are as follows:

Stand No.	No. of Stands	Condition of Use
TW1	1	<ul style="list-style-type: none">• Tow-in/ Tow-out• Up to wing span of 26m (only for CR700 and ERJ170)
TW2	1	<ul style="list-style-type: none">• Tow-in/ Tow-out• Up to Code C aircraft
TC1	1	<ul style="list-style-type: none">• Tow-in/ Tow-out• Up to Gulfstream 650.• No night time operations.
M25-27	3	<ul style="list-style-type: none">• Tow-in/ Tow-out• Up to B737 MAX 8

M1A	1	<ul style="list-style-type: none">• Tow-in/Tow-out• Up to Code C aircraft
NB21-NB40	20	<ul style="list-style-type: none">• Tow-in/Tow-out• Up to Gulfstream 650• No ground servicing of aircraft• No night time operations

2.0 Objectives of Mitigation Parking Procedures

Sudden surge in demand for active parking stands may arise when adverse weather, prolonged Red Lightning Warning or industrial actions affecting airlines operations. Mitigation parking increases the aircraft parking capacity by providing temporary parking positions on the apron for non-active aircraft and release full operational stands for active aircraft whilst maintaining safe and efficient airfield operations. Those parking positions are not equipped with aircraft ground servicing facilities.

B. PARKING OF INOPERATIVE AIRCRAFT WITHOUT INTERFERENCE TO NORMAL AIRFIELD OPERATIONS

1.0 Failure Impacts

1. Increase in the demand for parking stands.
2. Increase in the number of aircraft parked in the airfield.

2.0 Failure Recovery

1. Temporary parking positions are provided at various locations on the Apron. Table One below summarises the parking areas to be used under Phase One.

Mitigation PARKING AREAS-TABLE ONE

Parking Order	Location	No. of aircraft able to be accommodated
1	Taxilane M (MT1 – MT3)	3
2	Taxilane P (PT1 – PT5)	5
3	Taxilane N1 (NT11 – NT16)	6
4	Taxilane L7 (LT1 – LT2)	2
5	Taxilane N2 (NT22 – NT24)	3
6	Taxilane R (RT1 – RT9)	9
Total		28

- a. IAC-ACC will seek permission from Air Traffic Control (ATC) prior to activation with the general aircraft stand occupancy, expected amounts and types of aircrafts involved, expected overall duration.
- b. All line maintenance operators will be well informed of the parking locations.
- c. Towing of the aircraft on Mitigation Parking positions must be closely monitored by Airfield staff to ensure parking position on taxilane is correct.
- d. When Taxilane N2 is to be used, IAC-ACC will inform AFC on the arrangement.

C. FULL APRON CONTINGENCY PROCEDURE

The procedure is established for the purpose of avoiding and handling full apron situation so that the airport operations can be resumed as soon as possible.

To avoid full apron situation is the main focus of this procedure that highly relies on the Apron Control Center (ACC) staff who are responsible for the parking stand allocation to foresee the parking stand condition of the next coming hour. If it is found to be critical, the “Departure Holding Procedure (DHP)”: should be activated.

- a. When full apron is predicted in the next hour and condition warrant
- b. ACC inform ATC to activate the “DHP”

- c. ACC inform Airport Duty Manager (ADM) of the activation of the DHP and issue SMS notify airport community.
- d. If arrivals have been held on Taxiway T and F (abeam Taxiway A) waiting for parking stand already, Airfield Duty Manager (AFDM) should consult ATC supervisor and deploy a trained Airfield Officer to ATC tower to coordinate the disruption and expedite the clearance of the arrivals being held at taxiways.
- e. Details refers to ACC-1003-R

D. INTERFACE WITH OTHERS

1.0 During Contingency

- 1. ADM will consider activation of AEC if situation warrants:
 - a. AEC activation to include representatives from airlines, ground handling agents, ramp operators and other involved parties
 - b. Coordination may need to take place within the AEC for delivering checked bags to passengers who are unable to be reconciled with their luggage.
 - c. Crowd management issues may arise for both airside and landside.
 - d. TOD crowd management plans may need to be actioned.
 - e. PCT teams may need to be deployed

END OF BCP – H2

Business Continuity Manual

Business Continuity Plan: H3

Tsunami Plan

		Signature	Revision	Effective Date
Updated By	Manager BCP, SSBC	 Mandy Hui		
Reviewed By	Assistant General Manager BCP, SSBC	 Emily Chu	34	Nov 2023
Approved By	General Manager SSBC	 David Jea		

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A. Introduction

1. Tsunami is a series of water waves, caused by an undersea earthquake, that can quickly inundate low-lying coastal regions.
2. Tsunami can be caused by submarine earthquakes or earthquakes at coastal shorelines, submarine landslides, submarine volcanoes, exploding island-type volcanoes, large scale landslides near the coast, etc.
3. The three points below are extracted from the “Contingency Plan for Natural Disasters” (File ref. SB FR/1-90/4), issued by Security Bureau in October 2019:
 - a. The chance of Hong Kong being affected by a significant tsunami (i.e. one with a tsunami height of 0.5 metre or higher) is very small.
 - b. Since automatic tide gauges were installed in Hong Kong in the early 1950s, only seven measurable tsunamis were recorded, all not significant.
 - c. This is notably due to the sheltering effect of the land masses of Taiwan and the Philippines against tsunamis originated in the Pacific.
4. However, tsunamis have been known to cause immense damages and great loss of lives and properties to low lying coastal regions e.g. the tsunami of Bandar Aceh of 2004, and the tsunami of Japan’s Northeastern Coast of 2011.
5. In order to ensure an integrated and coordinated approach to planning for a tsunami response, the following tsunami plan can be used by Hong Kong International Airport (HKIA) stakeholders and business partners to devise their own company-specific tsunami business continuity plans compatible with others within the HKIA community.

B. Alerting

1.0 HKO-Initiated Tsunami Warnings & Bulletins

1. The Hong Kong Observatory (HKO) tsunamis warnings and information bulletins will be sent by fax to the IAC-ACC, IAC-TOD, FRTMO, IAC-LD and AEC.
 2. HKO will issue a tsunami warning for the public if a significant tsunami (i.e. a tsunami with a height of 0.5 metre or more above the normal tide level) is expected to reach Hong Kong within 3 hours. The following information will be given in a Tsunami Warning:
 - a. Time of occurrence, location and magnitude of the earthquake that generates the tsunami.
 - b. The estimated time of arrival of the tsunami at Hong Kong.
 - c. The estimated tsunami heights in Hong Kong.
 - d. An advice for members for the public to take precautions.
- *e. Normal tides of the day in Hong Kong.
- *f. Tsunami heights recorded around the Pacific, the South China Sea or Hong Kong.
- g. Precautionary announcements.

Items marked with an asterisk are optional depending on availability of information and relevance for a particular event.

3. HKO Precautionary Announcements to Accompany a Tsunami Warning:
 - a. Stay away from shores, beaches and low-lying coastal areas. If you are there, move inland or to higher grounds. The upper floors of high, multi-storey, reinforced concrete building can provide safe refuge if there is no time to quickly move inland or to higher grounds.
 - b. Do not engage in water sports.
 - c. Vessels should stay away from the shore or shallow waters. If vessels remain moored in typhoon shelters, their moorings should be doubled and all personnel should leave the vessels and head for higher grounds.
 - d. Please observe these precautions until the Hong Kong Observatory cancels the tsunami warning.
 - e. Please stay tuned to the radio or television for further information.
4. The following information will be given in a Tsunami Information Bulletin:
 - a. Time of occurrence, location and magnitude of the earthquake that generates the tsunami.
 - b. A statement to the effect that a tsunami has been or might be generated, and its estimated time of arrival at Hong Kong. If the tsunami height at Hong Kong is expected to be below 0.5 metre, this will be mentioned.
 - *c. Normal tides of the day in Hong Kong.
 - *d. Tsunami heights recorded around the Pacific, the South China Sea or Hong Kong.

Items marked with an asterisk [*] are optional depending on availability of information and relevance for a particular event.

5. The above information is obtained from Annex D of the “Contingency Plan for Natural Disasters” (File ref. SB FR/1-90/4), issued by Security Bureau in October 2019 and is also reproduced in EPM Volume 3, Part 12, “Weather Warnings”.
6. HKO Airport Meteorological Office (AMO) will also issue Aerodrome Tsunami Warning in accordance to Appendix 6, Section 5.1.3 of ICAO Annex 3. The IAC-ACC, IAC-TOD, IAC-LD and FRTMO would be informed by fax.

2.0 Airport Authority Alerting

1. The following are excerpted from the EPM Volume 3, Part 12, Section 42.
2. Once alerted by HKO, IAC-ACC will alert the Airport Duty Manager (ADM).
 - a. IAC-ACC will send the tsunami warning message to the Airport Fire Contingent (AFC) and all ramp operators by e-fax.
 - b. Cancellation of tsunami warnings will be relayed as per the above process.
3. Once alerted by HKO, IAC-TOD will alert the Airport Duty Manager (ADM).

- a. IAC-TOD will also inform IAC-LD.
- b. IAC-TOD will send the tsunami warning message to all airlines, ground handling agents and AVSECO by e-fax.
- c. IAC-LD will send the tsunami warning message to all landside contractors, cross-boundary ferry handling agent; Bonded bus handling agent and marine cargo operator by e-fax.
- d. Cancellation of tsunami warnings will be relayed as per the above process.

3.0 Terminal Buildings Indoor PA Announcements

1. IAC-TOD to make appropriate indoor PA announcements in accordance with information as received from the HKO Tsunami Precautionary Announcements.
2. Duty and other AA staff including the Service Ambassadors are to assist the general public to take necessary precautionary actions.

C. Command, Control, Coordination (C³)

1. If HKO tsunami warnings indicate the tsunami may affect HKIA operations, the ADM may activate the Airport Emergency Center (AEC) to manage the airport's C³ function.
2. If necessary, the ADM may relocate the AEC to another safer location away from the tsunami waves.
3. The relocated AEC location will be relayed to all representatives along with the AEC activation message.
4. Companies called upon to send representatives to the AEC are to do so as quickly as possible in order to ensure airport-wide coordination takes place as soon as possible.

D. Tsunami Response

1. Similar to storm surges caused by approaching tropical cyclones, significant tsunamis may bring about inundation of low-lying coastal areas. Because of historical concern about storm surges, Hong Kong is already well prepared against tsunamis. Coastal designs of built-up areas in Hong Kong and general land use have catered for storm surges. This offers protection against tsunamis of considerable height (more than two times the highest tsunami recorded in Hong Kong since the early 1950s).
2. For tsunami waves that are less than 2.5m, existing flooding and severe weather precautions may apply.
3. Upon receipt of HKO tsunami warnings that are projected to be less than 2.5m in height, all are to action their flooding and severe weather contingency procedures.

E. Extreme Tsunami Response

1.0 General

1. There are little indications in the near future that tsunamis that may affect the Airport Island would exceed 2.5m above normal tide level.
2. However, as an example, the tsunami waves triggered by earthquake in Japan in 2011 were ten to twenty meters high in some coastal areas in Japan.
3. As such, upon receipt of HKO tsunami warning of wave heights that may inundate the Airport Island in part or in whole, one or more of the following precautions may be actioned.
4. Time will be a critical factor in carrying out precautions against these extreme events. For instance, tsunami waves generated by seismic events in the Manila Trench will take less than 3 hours to reach Hong Kong.
5. As a planning guideline, any precautionary actions to be carried out should leave at least one hour for the involved personnel to reach higher grounds / relatively safer / taller buildings after carrying out their precautionary actions.
6. Responses to tsunami may be very different from other types of disasters:
 - a. All personnel must evacuate to higher grounds / safer areas as soon as possible because the lead-in warning time may be less than 3 hours. Essential personnel will have to start recovery operations after the waters from the tsunami waves recede.
 - b. No one should be left behind in unsafe areas.
 - c. There need to be coordination between affected companies and their designated essential recovery personnel to come back to the airport at a safe time.
 - d. Since there is a likelihood that phone lines and mobile phone networks may not work, arrangements should be made with RTHK/etc. for radio broadcasts to essential workers to let them know when / where / how to report for duty.
 - e. In addition, the ground transportation network on HKIA may be severely affected and as such, alternate means of transporting essential teams back to the airport may need to be considered in order to expedite airport recovery operations.
7. If deemed appropriate, essential recovery teams may be pre-positioned at the upper floors of relatively large and stable buildings (e.g. floors higher than projected wave heights like Level 6 and 7 of buildings like Terminal 1).
8. It may very well be that damages cannot be avoided from the impact of the tsunami, therefore, the emphasis in precautionary actions are to :
 - a. Save lives.
 - b. Minimize damages that can be caused by the waves and subsequent flood waters.
 - c. Promote recovery operations once the flood water recedes.

2.0 AEC Command, Control & Coordination and IAC Fallback

1. The AEC is located at runway level or below and as such, is susceptible to flooding if projected tsunami waves are greater than the height of the CLK Island seawalls.
2. An alternate AEC may need to be mobilized if the AEC is unserviceable.
3. Alternate AEC locations may include the following possible sites :
 - a. Training Centre at 5Z539 Room B
 - b. HKIA Tower Meeting Room 3A
 - c. SSBC will coordinate with ITD to ensure basic communication equipment are available at the alternate AEC.
4. The alternate AEC location will be broadcasted to relevant parties so their representatives can report for coordination duties
5. IAC-TOD, IAC-LD, IAC-ABD and FRTMO will be relocated to the designated fallback location (e.g. Multi-Function room at HKIAT2); whilst IAC-ACC will be repositioned to the backup ACC located at AOC office of 2nd level of MOMB2 when instructed by the ADM.

3.0 Inbound Flights

1. If projected tsunami waves are greater than the height of the CLK Island seawalls, then take-off and landing operations may not be possible once the waves reach HKIA.
2. If situation warrants, CAD-ATMD in consultations with AA may divert all inbound flights to unaffected airports.
3. Diversions will be in effect until after further consultations between HKO, AA and CAD.

4.0 Outbound Flights

1. If situation warrants, all on-ground aircraft with available cockpit crew are to be immediately sent off to appropriate unaffected airports.
2. If aircraft need to be refueled, they should be fueled with sufficient fuel to reach primary and alternate unaffected airports.
3. Priority of outbound flights will be based upon who is first to be pushed back from the parking stand.
4. Empty flights may be pushed back if insufficient time to load all passengers; in addition, flights should not be delayed because of catering or other non-essential services.
5. It is important that as many on-ground aircraft should be flown off as time and situation permits;
 - a. Aircraft left on the apron may be highly susceptible to damages from the tsunami waves;

- b. The aircraft themselves, if loosened from their apron tie-downs, may cause additional damages to other tied-down aircraft and installations as the waves carry them away from their parking stands;
- c. Damaged aircraft will increase the amount of debris and increase the clean-up time thus affecting HKIA recovery operations.

5.0 SkyPier Terminal

1. If situation warrants, SkyPier Terminal is to be evacuated.
2. All flooding and severe weather contingency procedures to be carried out.
3. Special flooding precautions need to be applied to the APM as it is highly vulnerable to flooding.
4. All upstream ports are to be advised of SkyPier Terminal's closure until further notice.
5. All Air-To-Sea/Bridge and Sea/Bridge-To-Air passengers must be evacuated.
6. All personnel must also be evacuated; nobody should be left at SkyPier Terminal once all passengers are gone.

6.0 BAC

1. If situation warrants, BAC aircraft should be flown off as soon as possible.
2. Inbound flights should be diverted to unaffected airports.
3. If circumstances allows, aircraft unable to be flown off need to arrange refueling to increase ballast in order to prevent as much as possible the aircraft from being carried away by the tsunami waves.
4. Hangar doors should be closed.
5. Ground equipment should be secured to prevent them being carried away by the tsunami waves and becoming debris that may damage other installations.
6. Apron equipment or systems that cannot be moved need to be prepared as per flooding contingency procedures with the aim of minimizing water damages.
7. If feasible, ground equipment should be driven to higher, safer areas (e.g. upper stories of AAT, Hactl, Car Park 4, etc.).
8. Removing these ground equipment will save them for the recovery operations.

7.0 Passengers & Airport Workers

1. AA Corporate Affairs Department (CAF) works with HKO and the Government Information Services Department (ISD) to inform the public not to come to the airport until further notice.

2. TOD and LD to coordinate with the Police on how best to quickly evacuate all passengers from CLK Island to higher and safer areas.
3. Transportation arrangements must be made to evacuate the last of the essential personnel that are carrying out flooding and severe weather contingency plans.
4. No one should be left behind in vulnerable areas.
5. If deemed appropriate, essential recovery teams may be pre-positioned at the upper floors of relatively large and stable buildings (e.g. floors higher than projected wave heights like Level 6 and 7 of buildings like Terminal 1) in order to provide on-site essential support.

8.0 Apron Preparations

1. On-ground aircraft unable to be flown off must be tie-downed as per severe weather procedures; tie-down lines should be doubled to prevent as much as possible the aircraft from being carried away by the tsunami waves.
2. Hangar doors should be closed.
3. Ground equipment should be secured to prevent them being carried away by the tsunami waves and becoming debris that may damage other installations.
4. Apron equipment or systems that cannot be moved need to be prepared as per flooding contingency procedures with the aim of minimizing water damages.
5. If feasible, ground equipment should be driven to higher, safer areas (e.g. upper levels of AAT, Hactl, Car Park 4, etc.).
6. Removing these ground equipment will save them for the recovery operations.
7. Essential recovery personnel should be identified and communication protocol established so that they can be contacted at appropriate time to come back to the airport to start recovery operations.
8. If deemed appropriate, essential recovery teams may be pre-positioned at the upper floors of relatively large and stable buildings (e.g. floors higher than projected wave heights like Level 6 and 7 of buildings like Terminal 1) in order to provide on-site essential support.

9.0 Buildings Preparations

1. All buildings should be prepared for flooding as per flooding and severe weather contingency procedures.
2. Back-up generators and their fuel supplies should be made flood resistant as much as possible.

3. Comms Rooms and other telecommunication/PABX rooms located in lower floors or basements should be made flood resistant as much as possible.
4. This also applies to entrances and exits to the Automated People Mover (APM) and the Baggage Hall.
5. All personnel should be evacuated as soon as possible.
6. If deemed appropriate, essential personnel may stay behind and should relocate to the higher floors; as a general rule of thumb, relocate no less than 3 to 4 floors above ground level/sea level and higher than projected wave heights.
7. Refer to attached appendices for various building heights including those of the passenger terminal buildings.

F. Appendices

1.0 Building Heights Above Sea Level

Building Schedule of AOD/Government Sites as at 16 Jun 2004			
			Building Height
Lot No.	Land Use	Name of Building (Per 9 Oct 03 Submission)	Main Roof Level (MPD)
L002	AOD	Switching Station Q	11.85
L003	AOD	Generator Building GL7	13.3
L004	AOD	Oil Separator and Pumping Station No. 4	U/G
L005	AOD	Sewage Pump Station 8	U/G
L006	AOD	Gate House No. 5	13.9
L007	AOD	Switching Station N	11.45
L008	AOD	Airfield Ground Maintenance Building	17.15
L009	AOD	Western Sea Rescue Station	16.38
L010	AOD	Aircraft Recovery Equipment Storage	17.15
L011	Gov't	Localizer Equipment Room (Northern Runway - West)	11.92
L012	AOD	Hold Baggage Screen Level 5 Bag Store	10.88
L101	AOD	Emergency Generator Building M + GL2	13.7
L102	AOD	AGL Vault 'A'	11.8
L103	Gov't	Government Flying Services	22.5
L105	AOD	Civil Works Depot	11
L106	AOD	Sewage Pump Station 10	U/G
L107	AOD	Substation D and Switching Station D	11.65
L108	AOD	Generator Building GL6	13.8
L109	Gov't	Localizer Equipment Room (Southern Runway - West)	12.53
L110	AOD	Seawater Pump House 5	13.45
L111	AOD	Gate House No. 4	9.8
L112	AOD	Sewage Pump Station 7	U/G
L113	AOD	Switching Station L	11.25
L114	Gov't	Southern Rescue and Fire Fighting Station	25.4
L115	AOD	Western Tunnel Plant Room No. 6	12.3
L116	AOD	Oil Separator and Pumping Station No. 5	U/G
L117	AOD	Switching Station Y1	11.75
L118	AOD	Southern Sea Rescue Ramp	8.51
L203	Gov't	Joint Movements Unit	13.25
L205	Gov't	Airmail Centre	26.2
L206	AOD	Gate House No. 3	13.5
L207	AOD	AGL Vault 'B'	11
L208	AOD	Emergency Generator Building V + GL1	12.9
L209	AOD	Communications Equipment Building 1	10.05
L210	AOD	Generator Building GL4	12.9
L211	AOD	Switching Station I	11.45
L212	AOD	Eastern Tunnel Plant RM2	11.2
L213	AOD	Eastern Tunnel Pump House 2	U/G
L214	AOD	Oil Separator and Pumping Station No. 3	U/G
L215	AOD	Switching Station Y2	10.95
L216	Gov't	Customs Check Point (GateHouse 3)	10.05
L218	AOD	Security Screen Point 2	10.05
L301	AOD	CLP Primary Substation "B"	21.2
L305	AOD	Sewage Pump Station 6	U/G
L306	AOD	Gas Governor Kiosk 1	9.55
L307	AOD	Switching Station S	12.05
L308	AOD	Generator Building GL10	13.7
L309	Gov't	Landside Fire Station	25
L310	AOD	Sewage Pump Station 1	U/G

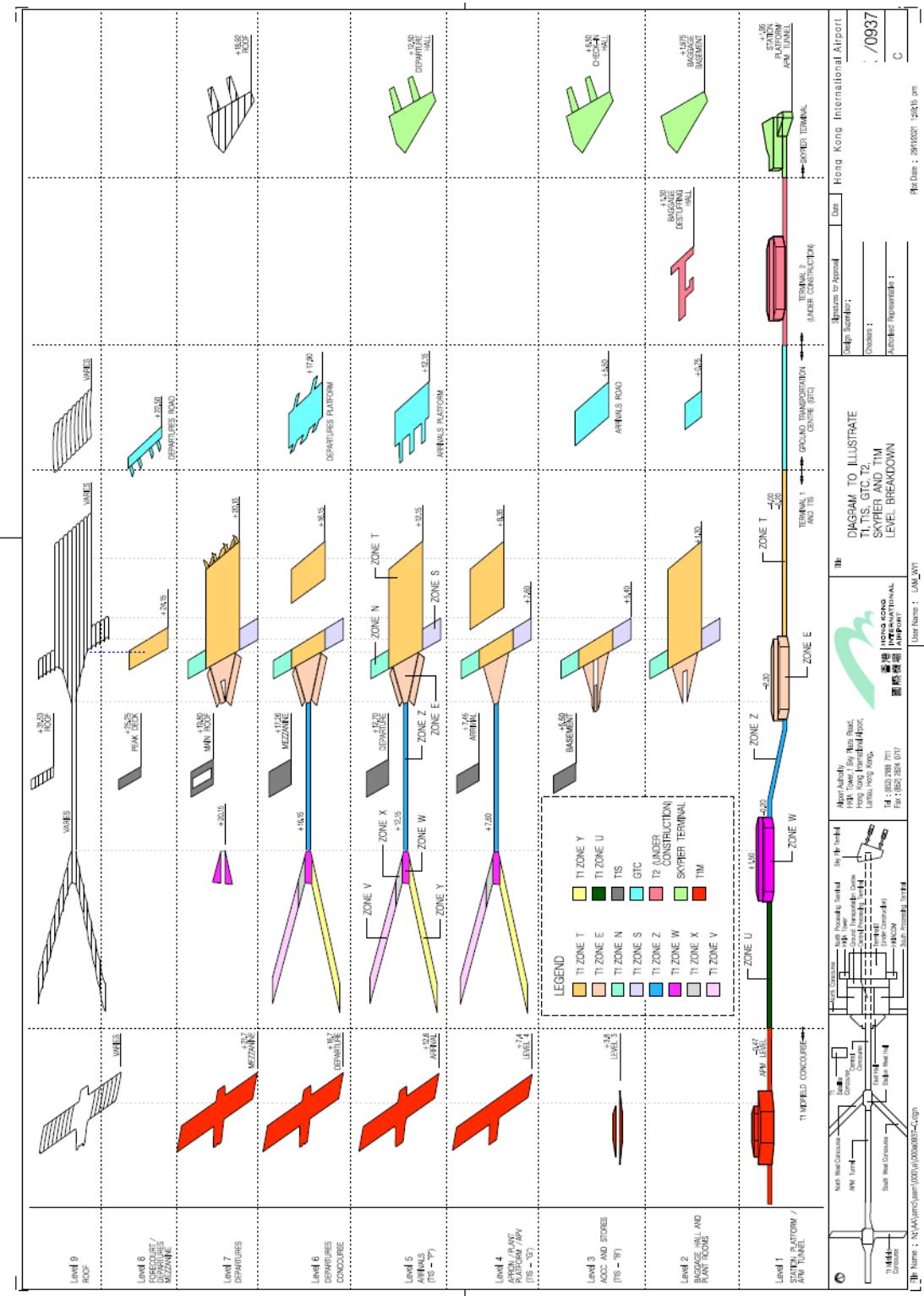
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Lot No.	Land Use	Name of Building (Per 9 Oct 03 Submission)	Main Roof Level (MPD)
L315	Gov't	Customs Check Point (Catering Gate)	13.19
L405	Gov't	Airport Police Building	45.64
L408	AOD	Waste Water Treatment Plant	16.56
L409	AOD	Generator Building GL8	13.2
L410	AOD	Switching Station R	11.75
L413	AOD	Vehicle Towing Compound	13.04
L414	AOD	Security Screen Point 1	10.5
L415	AOD	Catering Gatehouse	10.5
L601	MTR	MTRC Substation	22.25
L602	MTR	AEL Cleaning Platform	13.52
L603	Gov't	Eastern Sea Rescue Station	15
L604	AOD	CLP Primary Substation "A"	17.9
L605	AOD	Switching Station T	11.65
L606	AOD	Generator Building GL11	13.7
L701	AOD	Terminal 1	41
L702	AOD	Ground Transportation Centre	26.06
L704	AOD	North Multi-Storey Car Park	19.75
L705	AOD	Gate House No. 1	14.4
L706	AOD	Battery Charging Unit 1	14.82
L707	AOD	Tricharator A	14.72
L708	AOD	Oil Separator and Pumping Station No. 2	U/G
L709	AOD	Airport Authority Building	22.4
L710	AOD	Generator Building GH1	21.5
L711	AOD	Substation H and Switching Station H	11.75
L712	AOD	Generator Building GL5	13.8
L713	AOD	Seawater Pump House 1	13.75
L714	AOD	Switching Substation J1	12.6
L715	AOD	Switching Substation J2	13
L716	AOD	Refuse Compactor D2	11.415
L717	AOD	Switching Substation W	12.8
L718	Gov't	Northern Rescue and Fire Fighting Station	23.08
L719	AOD	Sewage Pump Station 5	U/G
L720	AOD	Airfield Operations Control Centre	13.7
L721	Gov't	Air Traffic Control Center and Air Traffic Control Tower	86.5
L722	AOD	Sewage Pump Station 4	U/G
L723	Gov't	Meteorological Enclosure	8
L724	AOD	Eastern Tunnel Pump House 1	U/G
L725	AOD	Eastern Tunnel Plant Room 1 (Including Switching Station X & Generator Building GL3)	12.7
L726	AOD	Tricharator B	14.62
L727	AOD	Battery Charging Unit 2	14.64
L728	AOD	Switching Substation K1	13.1
L729	AOD	Switching Substation K2	13.15
L730	AOD	Oil Separator and Pumping Station No. 1	U/G
L731	AOD	Gate House No. 2	13.5
L732	AOD	Gas Governor Kiosk 2	9.15
L733	AOD	Battery Charging Unit 3	14.57
L734	Gov't	Localizer Equipment Room (Southern Runway - East)	12.94
L735	AOD	Substation ex-EX	11.985
L736	AOD	Sewage Pump Station 2	U/G
L737	Gov't	Customs Check Point (Gatehouse 2)	10.5
L738	AOD	Sewage Pump Station 12	U/G
L740	Gov't	Localizer Equipment Room (Northern Runway - East)	12.88
aui	AOD	North Ground Level Car Park	8.85
L742	AOD	South Ground Level Car Park	9.01

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Lot No.	Land Use	Name of Building (Per 9 Oct 03 Submission)	Main Roof Level (MPD)
L743	Gov't	PRM Tower	61.2
L747	AOD	Communications Equipment Building 2	11.4
L750	AOD	Bus Regulator's Office	8.65
L751	Gov't	Customs Check Point (Gatehouse 1)	10.5
L752	AOD	Ferry Terminal Passenger Waiting Area	n/a
L754	AOD	Security Screen Point 3	10.5
L755	AOD	Attendant's Office (Tour Coach Station)	8.7
L756	AOD	Attendant's Office (Travel Industry Staging Area)	8.7
L757	AOD	Attendant's Office (Taxi Staging Area)	8.7
L758	Gov't	Northern Sea Rescue Platform	8.53
L759	Gov't	Transformer Room for ATC Backup Complex	12.81
L760	Gov't	Glide Path Building (Northern Runway - West)	U/G
L761	Gov't	Glide Path Building (Northern Runway - East)	U/G
L762	Gov't	Glide Path Building (Southern Runway - West)	U/G
L763	Gov't	Glide Path Building (Southern Runway - East)	U/G
L764	Gov't	CAD West Antenna Farm	12.58
L765	Gov't	CAD East Antenna Farm	12.25
L833	AOD	None	13.215
		Highlight means amendment and update since Concept Plan Rev G dated 24/7/00	
		Highlight means new developments since Concept Plan Rev G dated 24/7/00	
	U/G	means underground	

2.0 Passenger Terminal Buildings Heights Above Sea Level



End of BCP – H3

Business Continuity Manual

Business Continuity Plan: H4 Typhoon Response

		Signature	Revision	Effective Date
Updated By	Manager BCP, SSBC	 Mandy Hui		
Reviewed By	Assistant General Manager BCP, SSBC	 Emily Chu	35	May 2024
Approved By	General Manager SSBC	 David Jea		

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A. Typhoon Response

1.0 Introduction

1. The Airport Meteorological Office issues aerodrome warnings for the protection of aircraft and rescue vessels at the airport and provides information on issuing and cancelling of Tropical Cyclone Warning and Strong Monsoon Signals.
2. The Central Forecasting Office at the Hong Kong Observatory (HKO) Headquarters also issues Rainstorm Warnings which are intended for public use, may also be relevant to ground operations at the airport.
3. In determining precautionary measures at the airport, factors to be taken into account include the intensity of the tropical cyclone, its distance, speed and direction of approach to the airport, as well as the airport facilities which will become exposed to strong winds and heavy rain.
4. The intensity, frequency and wind directions forecasted at HKIA during the approach and eventual passage of the tropical cyclone, especially microburst phenomena and crosswind components are also factors that would determine the nature and levels of precautionary measures that need to be taken at HKIA.

2.0 Definition

1. HKO Classification of Tropical Cyclones

Tropical Cyclone Classification	Maximum sustained winds near the centre (km/h)
Tropical Depression (TD)	< 63
Tropical Storm (TS)	63 to 87
Severe Tropical Storm (STS)	88 to 117
Typhoon (T)	118 to 149
Severe Typhoon (ST)	150 to 184
Super Typhoon (SuperT)	185 or above

3.0 Key Processes

1. Typhoon Preparation

- Prior to the onset of any Typhoon, Safety, Security and Business Continuity (SSBC) / Airport Duty Manager (ADM) will liaise closely with both the HKO and Air Traffic Control (ATC) as to the tracking and potential impact to airport operations.
- Based on the latest weather forecast, and assessment of potential impact, Airfield Department (AD) will decide whether to implement Flight Rescheduling Control System (FRCS). FRCS is a procedure whereby the airlines' schedule of arrival and departure flights is cancelled and replaced

with a revised schedule based on ATC's assessment on runway capacity, given the prevailing weather conditions both in the local flight region and over the aerodrome itself.

a. Weather Briefing

- SSBC, or ADM during out of hours, will co-ordinate weather briefings to the airport community, typically 24 – 48 hours, in advance of the typhoon's impact. If necessary, more than one briefing will be arranged. At the briefing, the following will be coordinated:

Hong Kong Observatory (HKO)

- HKO will provide weather information and assessment as to impact to operations. Such briefings will cover inter alia, timings as to the typhoon's approach and an indication on tropical cyclone warning signals, wind speeds and direction, impact of any heavy rain bands associated with the typhoon, risk of local weather disruption such as cross winds, wind shear and microburst etc.

Air Traffic Control (ATC)

- ATC will advise the community on its concerns and advise on the reduced / degraded runway capacity (i.e. the numbers of aircraft movements) that it plans to accept.

Airlines

- Home-based airlines will advise on any preliminary decisions as to when they plan to suspend / resume flight operations, what flights they plan to cancel and whether they plan to stop accepting 6th freedom passengers (i.e. passengers transferring at HKIA) at their out ports.
- Alert passengers for rebooking, rerouting, cancellation ahead of time where appropriate.
- Take proactive measures to relocate aircrafts to other ports prior to the typhoon.
- Airline staff shall be on scene prior to arrival of the passengers upon as and when the typhoon signal has been lowered and resumption of public transport, and participate in the briefing session conducted by AA in which check-in arrangement is to be emphasized.

Airfield (AD)

- AD will then promulgate to the airlines details on timings as to when they need to submit their bids for take-off and landing slots under FRCS. In

additions, AD will advise the precautionary measures required by the airlines to safeguard the aircraft and to ensure the efficient aircraft turnaround activities during the recovery period.

- Controlled recovery shall be adopted i.e. gradually pick up flight resumption momentum within the first few hours of the recovery stage when appropriate.
- To adopt logical sequence to tie down and untie aerobridges, real time wind conditions shall be taken into consideration.
- Strategic manpower deployment shall be adopted e.g. minimize manpower during the peak of the typhoon affected period, and maximize that for the recovery stage.
- As for bridge canopy repair and recovery, priority shall be given to outer bridges as to the fact that both wide-bodied and narrow-bodied aircrafts could be facilitated there. Designated staff will be assigned for the repairing work.

Baggage (ABD)

- ABD will actively engage with the ramp handling operators and the baggage service contractors to ensure sufficient resource planning (manpower, baggage tractors, and other baggage equipment) is available for the duration.
- Controlled recovery shall be adopted i.e. Arrival reclaim belt and Departure lateral allocation gradually pick up flight resumption momentum within the first few hours of the recovery stage when appropriate.
- Strategic manpower deployment shall be adopted e.g. minimize manpower during the peak of the typhoon affected period, and maximize that for the recovery stage.
- Building maintenance priority shall be given to hot transfer facilities i.e. roller shutters at RTF and T1M baggage transfer facilities in order to maintain the area ready for recovery operation.

Terminal (TOD & LD)

- TOD and LD will advise the community on other measures such as preparation for crowd management within the Terminals, updates on transportation to and from the airport, other special arrangements such as catering and timings.
- Strategic manpower deployment shall be adopted e.g. minimize manpower during the peak of the typhoon affected period, and maximize that for the recovery stage.
- To conduct a quick briefing session for the airline staff before resumption of operation.
- Assign passengers to the designated gates at T1M and T1S before the announcement of the final boarding gates.

b. Other Preparation by corresponding departments

Airlines

- Airlines will ensure that parked aircraft are positioned safely and refueled to provide sufficient weight to protect against wind gusts.

Airfield (AD)

- AD will coordinate with the home-based airlines on the recovery plans to ensure they are realistic and of a progressive approach. AD will balance the number of arrival and departure flights to ensure the apron parking capacity will meet the demand.
- AD will carry out co-ordination with various airport organizations to ensure safety precautions are carried out, for example, all loose objects removed or secured, and isolated areas are identified in each apron for equipment parking.
- AD would designate a staff acting as central focal point to coordinate aerobridge checks, amongst TOD (fixed link bridge), AD (loading bridge) and TSI (functionality check).
- AD will proactively coordinate with TSI, CWC, CWM and TRD to inspect all worksites in the airside to ensure hoardings are reinforced, all equipment and loose materials are removed or secured, and excavated areas are protected. AD will coordinate with TSI to tie down the airbridges at locations that may be exposed to strong wind if deemed necessary.
- AD will also actively engage with the ramp handling operators and the line maintenance operators to ensure sufficient resource planning (manpower, aircraft tractors, and other apron equipment) is available for the duration.
- AD will coordinate with airlines to provide up-to-date flight information through Flight Information Display System (FIDS).

Aviation Logistics (ALD)

- ALD will disseminate latest projected track of the tropical cyclone and the tentative schedule of hoisting higher typhoon signal from HKO to franchisees.
- ALD will communicate with franchisees and make sure their typhoon precautionary/preventive measures are in place like securing empty ULDs and loose equipment.

Land, Property & Aviation Franchises (LPAF)

- LPAF will communicate with franchisees and remind them to conduct typhoon precautionary/preventive measures like the preparation of fuel ballasting and secure all loose equipment.

Terminal (TOD & LD)

- TOD and LD will prepare their crowd management measures within the Terminals. These include placing mills barriers and tensile barriers at various locations.
- TOD will implement crowd management measures in the Terminals as-and-when necessary:
 - (a) For disruptions in departure flow, queue serpentines will be set up at Check-in Aisles and Transition Deck, facilitating an effective crowd control management and set-up of a reception area for airlines/ GHAs to handle passengers with confirmed flights and standby passengers; and
 - (b) For disruptions in arrival flow when transportation is NOT available to/ from the airport and city, the Transition Deck will serve as a resting area with the set-up of chairs and mobile charging stations for stranded passengers.

Airport Operations & Facility Planning (AOFP)

- AOFP will, in conjunction with TOD's mobilizing available venue in Terminals, coordinate with other venue operator, bus operator, and contractors to arrange the setup and dismantling of Staff Resting Facility as-and-when necessary.
- AOFP will share updated information about the Staff Resting Facility with relevant parties.

Airport Duty Manager (ADM)

- ADM will issue latest information on potential impact of the typhoon through various media including the Display Management System (DMS), website and the “My HKG” smart phone application, and advise the community on the activation of the Airport Emergency Centre (AEC).

2. During the Typhoon

- Once Strong Wind Signal No. 3 is in force, ADM will activate the AEC. The AEC provides a multi-agency coordinating role in support of the Integrated Airport Centre (IAC) and FRCS activity. The AEC will remain active until resumption of normal operations.
- Aircraft operations may be suspended due to the severity of the winds over the runways. AD will coordinate with ATC on implementation of various measures such as contingency aircraft parking procedures, aircraft departure holding procedure, etc.

- AD will continue to ensure that the FIDS displays are up-to-date and flights with confirmed departure and arrival times to be displayed. If necessary, TOD will activate the FDSMS Contingency Display Procedure.
- FRCS activity will continue as the airlines bid for available slots for the next planning window.
- CAF will actively engage with the media throughout and together with the home-based airlines arrange for media briefings on site.

3. Flight Resumption and Typhoon Recovery

- AD will coordinate with TSI to conduct inspection to all apron facilities especially the airbridges after the typhoon. Priority will be on the recovery of airbridges to ensure the parking stand availability. AD will ensure that as many parking stands are made available as possible for aircraft arrival and departure once the flight movement is resumed. Active coordination between the AA, the airlines, the ramp handling operators and the line maintenance operators will continue to ensure that resources can cope with the increasing numbers of flights as and when the weather constraints ease and ATC increase the hourly number of take offs and landings.
- Once local transport returns to normal, the airlines will advise their passengers that only those holding tickets for confirmed flights should make their way to the airport.
- The AA, the airlines and the ground handling agents will implement crowd management measures when massive number of affected passengers is observed in the Terminals.
- Once FRCS is stood down and normal scheduling is resumed, the AEC will stand down.
- Each typhoon is reviewed at senior management level both internally by the AA and with the airport community.
- Specific and detailed procedures on Typhoon Response are contained in the Emergency Procedures Manual Volume III. This is promulgated to all parties at HKIA.

B. TASK & RESPONSIBILITIES

1. The task and responsibilities checklist listed below serves as an aide memoire or quick reference checklist to help coordinating the various actions that need to be carried out at different stages of a tropical cyclone's passage through HKIA; detailed procedures are contained in line departments' relevant procedural manuals.
2. This checklist will be amended as necessary and is part of the continuous improvement process carried out after each cyclone's response activation and the subsequent gathering of lessons learned.

	Responsible task	Action by
A	On alert of No.1 Standby signal	HKO / AA
1.0	<p>SSBC</p> <ul style="list-style-type: none"> a. Establish HKO coordination, contact HKO representative on weather situation, probabilities as well as estimated time for higher signals to be issued. Airport Meteorological Office 24-hour telephone no.: 2910 6920 b. If No. 3 signal is imminent or lightning / rain / wind conditions affect airport operations, prepare to conduct weather briefing & typhoon coordination meeting with HKIA community c. Issue meeting invitation with timing and venue for weather briefing & typhoon coordination meeting by email, fax or phone as appropriate d. Coordinate with responsible parties for venue set-up of the weather briefing & typhoon coordination meeting e. Arrange IT Helpdesk for PC/ projector set-up and support if necessary f. Ensure HKO AMIDS website available for projection at the briefing g. Meeting to be chaired by GM-SSBC or his deputy h. Weather briefing & typhoon coordination meeting agenda: <ul style="list-style-type: none"> i. State the weather briefing and typhoon coordination meeting agenda ii. Invite HKO Officer proceed with weather briefing iii. Invite CAD-ATMD for their inputs iv. AA inputs (AD, TOD, LD, ABD, CWC/CWM, TRD, ALD, LPAF, RAD and ADM) e.g. landside transport, ferry/Bonded Bus services, crowd management, food & beverages, FRCS, etc. v. Airport Operator Committee (AOC) inputs vi. Home-based carriers inputs vii. Ground Handling Agents (GHA) inputs viii. Ramp Handling Operator (RHO) inputs ix. Public transport services inputs if any, in the event of Signal 8 or higher x. Q&A session xi. Summary xii. Provide timing and venue for next weather briefing & typhoon coordination meeting, if necessary xiii. Issue Meeting Summary, if necessary i. Deploy manpower to AEC should it be activated by ADM 	<p>SSBC / ADM</p> <p>*Coordinated by SSBC during office hours; otherwise coordinated by ADM</p>
2.0	<p>ADM</p> <ul style="list-style-type: none"> a. ADM arrange pre-meeting coordination with IAC parties to check out the AA weather contingency plan prior to attending the weather briefing & typhoon coordination meeting, if applicable b. Prepare AEC activation details i.e. activation time and representatives from essential internal and external parties c. Redeploy one IAC staff for pre-AEC activation preparation if outside of normal office hours before SSBC staff can report for duty d. Prepare for escalation of responses if higher tropical cyclone signals are expected e. Oversee implementation of HKIA Emergency Message Broadcast (EMB) for disseminating HKIA disruption and crisis related information to stakeholders 	ADM

3.0	AD <ul style="list-style-type: none"> a. Weather alert disseminated to all ramp operators b. Carry out airside inspections against potential Foreign Object Damage (FODs) c. Ensure RHOs and Line Maintenance Operators (LMOs) secure equipment, loose objects, and secure/reposition aircraft where necessary d. Coordinate with RHOs and Cargo Terminal Operators (CTOs) on dolly recirculation arrangements e. Remind airside work contractors to check all worksite hoardings and secure all loose objects f. Remind TSI to check all drainage channels at all down ramps 	AD
4.0	ABD <ul style="list-style-type: none"> a. Weather alert dissemination by Baggage Hall PA system b. Carry out remote transfer and T1M baggage facilities inspections against potential damage c. Ensure work and project contractors secure construction material, equipment, loose objects d. Prepare to suspend operation of AABD in T1M. Notify RHOs and contractor e. Remind work and project contractors to check all worksite hoardings and secure all loose objects f. Remind TSI to open all High Speed Doors at all down ramps g. Remind TSI to check all roller shutters at all remote transfer facilities and T1M baggage facilities. h. Remind TSI to check all drainage channels at all down ramps 	ABD
5.0	ALD <ul style="list-style-type: none"> a. Weather alert dissemination to ALD franchisees 	ALD
6.0	LPAF <ul style="list-style-type: none"> a. Weather alert dissemination to LPAF franchisees 	LPAF
7.0	TOD <ul style="list-style-type: none"> a. Weather alert dissemination by Auto Voice Message Distribution System (AVMDS) b. Update, in consultation with ADM, DMS, PA, website and mobile app 	TOD
8.0	LD <ul style="list-style-type: none"> a. Update, in consultation with ADM, PA announcements at GTC and SkyPier Terminal, if necessary b. Contact Tsing Ma Control Area (TMCA), Tuen Mun – Chek Lap Kok Tunnel (TM-CLKT) and SkyPier Terminal Ferry/Bonded Bus Handling Agent (FHA/BHA) for operational updates 	LD
9.0	TSI <ul style="list-style-type: none"> a. Preparation works with AD on storm drains, oil traps and airfield areas b. Check drainage outlets and water pumps to ensure free from blockage / flooding 	TSI / AD / TOD / LD
10.0	AOFP <ul style="list-style-type: none"> a. Weather alert dissemination to airport staff b. Check venue operators' availability of Staff Resting Facility for the coming days, e.g. AsiaWorld-Expo, Regal Airport Hotel, etc. c. Ensure adequate equipment for Staff Resting Facility 	AOFP

B	When No. 3 signal is issued	HKO / AA
1.0	SSBC <ul style="list-style-type: none"> a. Deploy resources to AEC and create incident log b. Establish communications with airport organizations as required c. Request those organizations involved in response planning to send management representative to AEC as situation dictates d. Activate full manning of AEC if weather deteriorates to the point where operations are seriously affected e. Maintain AEC information exchanges and updates 	SSBC / ADM
2.0	ADM <ul style="list-style-type: none"> a. ADM will collate all airline requests and coordinate with AVSECO in deploying staff to assist with crowd management duties to achieve best resource utilization and with the overall HKIA's interest in mind b. Coordinate with RAD for extending the operating hours of F&B outlets as well as replenishing stocks as needed c. Oversee implementation of HKIA EMB for disseminating HKIA disruption and crisis related information to stakeholders d. Alert Airport Community on activation of the AEC as appropriate. 	ADM / AVSECO / RAD
3.0	AD <ul style="list-style-type: none"> a. Notify all concerns in according to the alerting proforma b. Deploy staff to update flight information/airfield status if AEC is activated c. Disseminate the information of Wind Speed at apron provided by AMIDS onto AEC platform d. Pay attention to the flight movement and stands availability and update ADM & AEC e. Close liaison with ATC for current runway availability (probable cross wind situation) f. Monitor wind speed and inform TSI for retract of airbridges/ tie down g. Inform work contractor to ensure integrity of hoarding & secure all loose objects h. Worksite inspection against any FOD which might be created due to strong wind i. Inform cleanliness contractor to reserve manpower & secure airside FOD bins j. Ensure TSI to clear storm drains & oil traps are open k. Check the condition of the grated channel covers on aprons l. Re-deployment of Bird Control Unit staff to assist other duties m. Retrieve the distress call equipment n. Close liaison with ATC for the update runway closure schedule o. Distribute plastic chains to respective RHOs/CTOs and keep a record (if requested by Standards & Service Delivery Section) p. Preparation of vehicle protective screen. And ensure adequate fuel q. Inform RHOs & LMOs to secure equipment & loose object. Ensure safety in open area r. Alert LMOs and Business Aviation Centre (BAC) to ensure their aircrafts are secured according to Standard Operation Procedures (SOP). s. Ensure empty containers, ULDs, and dollies are properly secured t. Tie down flexible FGP cables at Remote Stands u. Suspend the operation use of Inner airbridge (if wind speed reaches 25knots) v. Suspend the operation use of Outer airbridge to upper deck of A380 (ws exceeds 25kts) 	AD

	<ul style="list-style-type: none"> w. Tie down all Pre-conditioned Air (PCA) hoses x. Facilitate fuel ballasting upon request y. Secure all Ground Support Equipment (GSE) Pooling related items including lower deck loaders, main deck loaders and passenger steps, apply wheel chocks to all GSE once parked at home position, charge buffer GSE at GSE areas if wind condition allows z. Implement Flight Rescheduling Control System (FRCS) upon receiving directive from EDAO 	
4.0	ABD <ul style="list-style-type: none"> a. Weather alert dissemination by Baggage Hall PA system b. Review lateral allocation and plan for misconnect baggage staging area with RHOs c. Inform TSI to relocate removable traffic lights of Autonomous Electric Tractors (AET) at Bonded road to Baggage Hall d. Suspend operation of AABD in RTF and T1M e. Remind TSS to check APM drainage system and equipment 	ABD
5.0	ALD <ul style="list-style-type: none"> a. Weather alert dissemination to ALD franchisees b. Ensure franchisees to make preparation for securing all loose equipment / empty ULDs c. Remind franchisees to plan ahead for sufficient manpower to support operation 	ALD
6.0	LPAF <ul style="list-style-type: none"> a. Weather alert dissemination to LPAF franchisees b. Remind franchisees to make preparation for fuel ballasting and secure all loose equipment c. Remind franchisees to plan ahead for sufficient manpower to support operation d. Ensure the activation of tub boat guarding services for the Sha Chau Aviation Fuel Receiving Facility and the Permanent Aviation Fuel Facility (PAFF) by the operator and on-going monitoring until the step-down of such services after the typhoon e. Assess the potential implication to the aggregate fuel inventory (on-airport and PAFF) and the fuel delivery schedule having regard to the typhoon 	LPAF
7.0	TOD <ul style="list-style-type: none"> a. Weather alert dissemination by AVMDS b. Update, in consultation with ADM, DMS, PA, website and mobile app c. Strengthen communication and coordination with airlines e.g. set up whatsapp group with the airlines d. Consider to activate FDSMS contingency plans when needed e. Implement FDSMS contingency when needed f. Implement Landside Crowd Management Plan (Departure and/or Arrival) when needed g. Implement Airside Crowd Management Plan when needed h. Activate and set up command post at the back office of Customer Service Counter (CSC) on the 7th floor of Terminal 1 when needed. i. Prepare mills barriers and tensile barriers at designated locations (including T1 transition decks, Check-in aisles, E1, E2, W1, T1M, Airlines Service Desks A, B & C and relevant positions within the passenger concourses). j. Consider and prepare the activation of Staff Resting Facility, e.g. HKIA Community Building; etc, subject to HKO's assessment of T8 possibility. 	TOD / ADM / Govt dept.

	<ul style="list-style-type: none"> k. Alert St. John Ambulance Brigade for support of potential crowd control measures l. Confirm the hotline numbers with Airlines for passenger enquiries m. Confirm inventory on passenger care items in preparation for Passenger Care Team (PCT) activation n. Coordinate with airlines, AVSECO, ImmD and C&ED on escorting departing passenger who may want to return from airside to landside because of cancelled/deferred flights o. Check and inspect terminal facilities especially water leakage and flooding p. Alert service contractors to check resource availability for incoming shift and arrange necessary reinforcement as appropriate q. Alert RAD to liaise with the retail outlets for resource reinforcement, stock replenishment and extension of service hours r. Upon HKO's advance notice of issuing No. 8 signal, alert AA PCT for possible deployment s. PCT, manned by AA non-operational staff, will look after the welfare of stranded passengers in the terminals during typhoons and major disruptions to the airport. This service encompasses distribution of passenger care items, which include bottled water, snacks and blankets t. The PCT, with 4 teams to enable a round-the-clock service when needed u. Hourly update of T1 passenger counts 	
8.0	LD <ul style="list-style-type: none"> a. Disseminate information, in consultation with ADM, to the public, i.e. limited ferry and/or Bonded Bus services, via website, mobile app and public transport information at GTC down ramp b. Inspect drains, road networks, landside landscape, construction sites (in collaboration with TRD, CWC, CWM and TSI) and SkyPier Terminal facilities especially for water leakage and flooding c. Communicate closely with all public transport operators including bus companies, MTRC and taxis associations on typhoon situation; ensure bus companies to move away or secure all bus totems d. Divert traffic to the inner kerb lane when needed e. Relocate landside baggage trolleys from the median kerb to the inner kerb when needed f. Inform Landside landscaping contractor special duty team to be on standby at HKIA g. Maintain communication with TD's Emergency Transport Co-ordination Centre (ETCC), TMCA, TM-CLKT, SkyPier Terminal FHA/BHA and petrol stations on weather and operational updates h. Liaise with FHA/BHA on ferry sailing/ cancellation status and Bonded Bus schedule status i. Move all trash bins to indoor, check all worksite hoardings and secure all loose objects j. Strengthen communication and coordination with airlines k. Prepare mills barriers and tensile barriers for queuing set-up at GTC and SkyPier Terminal l. Get ready PCT inventories, i.e. bottled water, snacks and blankets at GTC and SkyPier Terminal store room m. Update the GTC and SkyPier Terminal operational status table if AEC activated n. Update the landside transportation status table if AEC activated 	LD / ADM

	<ul style="list-style-type: none"> o. Prepare activation of Contingency Airport Employee Shuttle (Airport <-> Tung Chung), subject to real-time situation p. Prepare for activation of Taxi Queuing Operation, subject to real-time situation 	
9.0	TSI <ul style="list-style-type: none"> a. Clear storm drains and keep oil traps opened b. Secure outdoor mills barriers and signage c. Check drainage outlets and water pumps to ensure no blockage or flooding d. Clear gutters and secure doors properly at GTC, T1, AGMB, T1S, T1M and SkyPier Terminal e. Activate survival mode (in consultation with LD) of the SkyPier Terminal pontoons if required, with reference to Terminal & Landside Procedures Manual – SkyPier Terminal Operations Procedure (Procedure No.: TLPM/086 – Section 28) f. Confirm all FGP crocodile at remote aircraft stands are tied up/down upon request by AD g. Ensure sufficient resources and manpower to proceed airbridges tie down procedure upon request by AD h. Ensure all PCA hoses are properly secured and install canvas net to the PCA hose basket upon request by AD 	TSI / AD / TOD / LD
10.0	AOFP <ul style="list-style-type: none"> a. Preparation work for Staff Resting Facility set up, such as venue, shuttle service, guarding service and equipment logistic arrangement b. Seek activation endorsement c. Disseminate facility information to airport staff 	AOFP
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C	When No. 8 signal is issued	HKO / AA
1.0	SSBC <ul style="list-style-type: none"> a. Activate AEC full manning (if not yet done so as a result of deteriorating weather conditions during No. 3 signal) and co-ordinate AEC response planning b. Ensure stakeholders send representatives to the AEC for real time coordination as well as relay information back to their respective down-lines for appropriate and timely response actions c. Ensure incidents are reported to the AEC for dissemination to AEC representatives d. Maintain AEC log with the latest updated information 	SSBC
2.0	ADM <ul style="list-style-type: none"> a. Ensure home base carriers and ground services providers send designated operational staff to AEC for real time coordination b. Coordinate timely submission of pragmatic revised flight movement plans c. Coordinate with airlines, AVSECO and IAC-AD on contingency use of the West Hall Arrivals as temporary APV Lounge for departure flights if frontal stand airbridges are suspended due to extreme wind conditions d. Alert CAF & Airport Police on potential media interest stories e. Alert Airport Community on: <ul style="list-style-type: none"> i. full manning of AEC as appropriate; ii. activation of Contingency Airport Employee Shuttle (Airport <-> Tung Chung) arrangements for airport staff when needed; iii. pre-alert of the operation arrangement of Gatehouse #1, #2 & 	ADM / AD / CAF

	<p>#3 under Extreme Weather Conditions (ie when typhoon no. 9 or above signal is issued).</p> <p>f. Coordinate with AA Administration Department on contingency staff transportation arrangements for duty staff, support staff and PCT members when needed</p> <p>g. Oversee implementation of HKIA EMB for disseminating HKIA disruption and crisis related information to stakeholders</p>	
3.0	<p>AD</p> <p>a. Implement Flight Rescheduling Control System (FRCS) upon receiving directive from EDAO</p> <p>b. Ensure base carriers and GHAs to send a flight operations coordinator to the IAC-ACC for real time coordination on revised flight movements and resources deployments</p> <p>c. Request RHOs and LMOs to send operational representatives to AEC for coordination on flight handling, resource redeployments and other real time tasks</p> <p>d. Coordinate with ATC on requirement of contingency aircraft parking procedures</p> <p>e. Coordinate with ATC on implementation of aircraft departure holding procedures if needed</p> <p>f. Ensure FIDS displays applied with dynamic changes in trimming down inactive flights; consider manual suppression of flight displays without confirmed ETAs and ETDs</p> <p>g. Coordinate with airlines to curtail uplifting online transfer passengers if connecting flights are severely delayed or cancelled (6th Freedom passengers)</p> <p>h. Coordinate with airlines and GHAs to defer passenger check-in for the flights without ETDs</p> <p>i. Coordinate with airlines on contingency aircraft catering procedures to expedite aircraft stand turn-around time</p> <p>j. Coordinate with RHOs and LMOs on resources and equipment deployments in regard to apron and baggage services</p> <p>k. Regular update on the FRCS approval status, Stand Availability, Contingency Parking, Passenger Bus Availability and Weather Information in AEC Log</p> <p>l. Update CAF on Affected Flight Summary</p> <p>m. Periodic update on any impending flight rescheduling activity</p> <p>n. Request TSI for tie down of airbridges if persistent wind speed reaches / expected to reach 77knots (140 km/h)</p> <p>o. Liaise with the airside bus contractor in arranging additional manpower to cope with the post typhoon demand surge</p> <p>p. Liaise with the apron cleaning contractor in arranging additional manpower for post typhoon operation resumption, if necessary</p> <p>q. Prepare for post typhoon contingency procedure</p>	AD / ADM
4.0	<p>ABD</p> <p>a. Weather alert dissemination by Baggage Hall PA system</p> <p>b. Liaise with the baggage handling service contractors in arranging additional manpower for post typhoon operation resumption, if necessary</p> <p>c. Roller shutters at RTF and T1M will be closed and secured during T8 or higher</p> <p>d. Prepare for post typhoon baggage contingency procedure</p>	ABD
5.0	<p>ALD</p> <p>a. Weather alert dissemination to ALD franchisees by email and WhatsApp group</p> <p>b. Ensure franchisees have already performed all necessary precautionary measures such as securing all loose equipment /</p>	ALD

	<ul style="list-style-type: none"> c. empty ULDs d. Based on public transport availability status, advise franchisees to arrange staff transportation (e.g. franchised buses) if necessary e. Disseminate information on Contingency Staff Transport (if any) arranged by AA for airport staff to the franchisees f. Liaise with AD and CTOs if FRCS is implemented and make necessary coordination f. Close monitor with Franchisees for contingency situation or operation irregularity 	
6.0	<p>LPAF</p> <ul style="list-style-type: none"> a. Weather alert dissemination to LPAF franchisees b. Ensure franchisees have already performed all necessary precautionary measures such as fuel ballasting and secure all loose equipment c. Close monitor with Franchisees for contingency situation or operation irregularity d. Disseminate information on Contingency Staff Transport (if any) arranged by AA for airport staff to the franchisees 	LPAF
7.0	<p>TOD</p> <ul style="list-style-type: none"> a. Weather alert dissemination by AVMDS b. All parties notified of the activation of AEC via AVMDS c. Update, in consultation with ADM, DMS, PA, website and mobile app d. Special announcements posted on AA website and mobile app after consultation with CAF e. Ensure all concerned parties keep track on the status of VIP movements f. Coordinate with airlines' care teams g. Ascertain if other care teams are to be deployed e.g. from St John Ambulance Brigade, Red Cross, CAS, AMS, etc. h. Implement Landside Crowd Management Plan (Departure and/or Arrival) when needed i. Implement Airside Crowd Management Plan, in whole or in part, when needed j. Activate and set up command post at the back office of CSC on the 7th floor of Terminal 1 when needed k. Implement Airline Inquiry Counters on Transition Deck when needed l. Implement the Transit Advice Cards when needed m. Remind airlines and GHA's to allow 30 minutes for coordination with the Police before airlines open service counters to handle passengers of disrupted flights n. Turn CCTV cameras toward disgruntled passengers if there is a likelihood of violent behaviours in order to gather potential evidence for Police use o. Police may also deploy video teams to gather additional evidence p. Make appropriate arrangements at West Hall APV Lounge if airbridges are unusable due to excessive wind conditions q. Review cleaning contractor's manpower deployment plan and step up the cleaning frequencies r. Maximize landside trolley recirculation s. Stock up at least 1500 landside trolley on down ramp t. Mobilize at least one duty staff to cover each aisle for better crowd control u. Arrange additional manpower of the cleaning and trolley contractors v. Hourly update on T1 passenger counts w. Activate Staff Resting Facility if needed 	TOD / AD / CAF / ADM

8.0	LD <ul style="list-style-type: none"> d. Timely disseminate public transportation information to airport community staff (AOC, Hactl, CX City, etc.) on franchise buses, AEL services including MTR-Tung Chung services e. Disseminate information, in consultation with ADM, to the public i.e. suspension of ferry/Bonded Bus services via AA website and mobile app f. Disseminate available transportation information, in consultation with ADM, for arrival passenger at GTC down ramp via digital panel, DMS and PA g. Coordinate with bus franchisees on extension of limited bus services whenever possible including Intra-CLK Island routes h. Coordinate with MTRC on AEL services and request additional frequencies if surges of arrival passenger expected i. Request Police to station at taxi station in preventing passengers from being overcharged j. Monitor taxi availabilities, request taxi trade to increase supply and activate flow control at central down ramp and queue management at taxi station to assist arrival passenger flow k. Contact ETCC, TMCA, TM-CLKT, SkyPier Terminal FHA/BHA and petrol stations on operational update l. Coordinate additional contractors' manpower on transport information provision, flow control, cleaning, traffic & car park management as well as landscape management m. Update landside transportation status table n. Update GTC and SkyPier Terminal operational status table o. Activate passenger care provision for stranded passengers p. Close outdoor escalators at car park 1 when needed q. Disseminate information of Contingency Airport Employee Shuttle (Airport <-> Tung Chung) via HKIA Operations Portal, if activated 	LD / ADM
9.0	TSI <ul style="list-style-type: none"> a. Arrange labour to support TOD & LD for crowd management b. Arrange labour to support ABD for baggage handling c. Activate survival mode (in consultation with LD) of the SkyPier Terminal pontoons if required, with reference to Terminal & Landside Procedures Manual – SkyPier Terminal Operations Procedure (Procedure No.: TLPM/086 – Section 28) 	TSI / ABD / TOD / LD
10.0	AOFP <ul style="list-style-type: none"> a. Activate and set up Staff Resting Facility and oversee facility operations if needed b. Prepare for stand-down procedure when appropriate 	AOFP
D	When No. 9 signal or higher is issued	HKO / AA
1.0	SSBC <ul style="list-style-type: none"> a. Ensure incidents are reported to AEC for dissemination to AEC representatives b. Maintain AEC log with the latest updated information c. AVSECO activates the temporary change of operating hours and services for Gatehouse #1 (extended service hours), Gatehouse #2 & #3 (to facilitate emergency vehicles and associated personnel only) 	SSBC

2.0	ADM a. Review the resources of AD, TOD, LD, ABD, TSI and TSS b. Monitor and oversee the progress of contingency plans	ADM
3.0	AD a. Hourly update on the FRCS approval status Stand Availability, Contingency Parking, Passenger Bus Availability and Weather Information (wind speed checks) in AEC log b. Based on public transport availability status, advise RHOs / LMOs to arrange staff transportation (e.g. franchised buses) if necessary c. Update CAF on Affected Flight Summary d. Update flight information through FIDS	AD
4.0	ABD a. Weather alert dissemination by Baggage Hall PA system b. Based on public transport availability status, advise service contractors to arrange staff transportation if necessary	ABD
5.0	ALD a. Weather alert dissemination to ALD franchisees by email and WhatsApp group b. Liaise with AD and CTOs if FRCS is implemented and make necessary coordination c. Close monitor with Franchisees for contingency situation or operation irregularity d. Disseminate information on Contingency Staff Transport (if any) arranged by AA for airport staff to the franchisees	ALD
6.0	LPAF a. Weather alert dissemination to LPAF franchisees b. Close monitor with Franchisees for contingency situation or operation irregularity c. Disseminate information on Contingency Staff Transport (if any) arranged by AA for airport staff to the franchisees	LPAF
7.0	TOD a. Weather alert dissemination by AVMDS b. Update, in consultation with ADM, DMS, PA, website and mobile app c. Monitor the progress of activated contingency plans d. Hourly update on passenger counts at T1 & other passenger concourses	TOD
8.0	LD a. Update AEC on public transport situations b. Monitor the progress of activated contingency plans c. Coordinate with MTRC on the status of AEL services and request MTRC to operate special runs to cater for the real time emergency needs d. Update landside transportation status table e. Activate Taxi Queuing Operation if required	LD / ADM
9.0	TSI and TSS a. Deploy manpower according to operational needs and ensure sufficient resources for extended periods b. Activate survival mode (in consultation with LD) of the SkyPier Terminal pontoons if required, with reference to Terminal & Landside Procedures Manual – SkyPier Terminal Operations Procedure (Procedure No.: TLPM/086 – Section 28)	TSI / TSS / AD / TOD / LD

10.0	AOFP a. Oversee Staff Resting Facility operations b. Prepare for stand-down procedure when appropriate	AOFP
E	When No. 9 or higher signal is lowered to No. 8	
1.0	SSBC a. Ensure incidents are reported to AEC for dissemination to AEC representatives b. Maintain AEC log with the latest updated information c. AVSECO to resume normal operating hours and services for Gatehouses #1, #2 and #3	SSBC
2.0	ADM a. Review the resources of AD, TOD, LD, ABD, TSI and TSS b. Monitor the progress of activated contingency plans	ADM
3.0	AD a. Monitor the progress of activated contingency plans b. Regular update on the FRCS approval status, on Stand Availability, Contingency Parking, Passenger Bus Availability and Weather Information (wind speed checks) in the AEC log c. Request TSI to untie airbridges if persistent wind speed lowered / expected to lower than 77knots (140km/h) d. Update CAF on Affected Flight Summary e. Update flight information through FIDS	AD
4.0	ABD a. Weather alert dissemination by Baggage Hall PA system b. Lateralis will be assigned according to FRCS arrangement c. Monitor the progress of activated contingency plans	ABD
5.0	ALD a. Weather alert dissemination to ALD franchisees by email and WhatsApp group b. Liaise with AD and CTOs if FRCS is implemented and make necessary coordination c. Close monitor with Franchisees for contingency situation or operation irregularity d. Liaise with Franchisees to get prepared for services recovery	ALD
6.0	LPAF a. Weather alert dissemination to LPAF franchisees b. Close monitor with Franchisees for contingency situation or operation irregularity	LPAF
7.0	TOD a. Weather alert dissemination by AVMDS b. Update, in consultation with ADM, DMS, PA, website and mobile app c. Monitor the progress of activated contingency plans d. Hourly update on passenger counts at T1 & other passenger concourses	TOD
8.0	LD a. Liaise with MTRC on service resumption and explore the need for increased frequency or deploy Tung Chung train to serve AEL line	LD / ADM

	<ul style="list-style-type: none"> b. Conduct crowd management plan for AEL service resumption, set up queue arrangement to AEL platform c. Set up staff enquiry positions (AEL, Police & AA) and appropriate signage posted at the entrance for crowd management and assist queue management d. Update AEC of public transportation availabilities e. Monitor the progress of activated contingency plans f. Update landside transportation status table g. Arrange for the cessation of Taxi Queuing Operation if activated 	
9.0	TSI <ul style="list-style-type: none"> a. Prepare the resources deployment for airport operational recovery b. Ensure sufficient resources and manpower to prepare for airbridges untie for operational recovery 	TSI
10.0	AOFP <ul style="list-style-type: none"> a. Oversee Staff Resting Facility operations b. Prepare for stand-down procedure when appropriate 	AOFP
<hr/>		
F	When No. 8 signal lowered to No. 3 / No.1 / All signals cancelled	
1.0	SSBC <ul style="list-style-type: none"> a. Update AEC log on recovery plans and disseminate information to AEC representatives 	SSBC
2.0	ADM <ul style="list-style-type: none"> a. Monitor and oversee recovery / resumption plans b. Coordinate with CAF on media interest stories c. Alert Airport Community on cessation of Contingency Airport Employee Shuttle (Airport <-> Tung Chung) if activated during typhoon period 	ADM
3.0	AD <ul style="list-style-type: none"> a. Cease Flight Re-scheduling Control System (FRCS) operation if instructed by EDAO b. Designate temporary staging areas for idle cargoes and containers by the CTOs to facilitate the circulation of dollies if necessary c. Confirm all airbridges are untied and conduct inspection to the airbridges for immediate repair and recovery for aircraft docking d. Request airlines setting up their flight recovery plans and provide accurate information to AA and respective RHO, LMO and aircraft caterer as early as possible e. Ensure adequate manpower of the RHOs and LMOs to meet the surge of aircraft movements after the typhoon f. Consider the need to activate the contingency procedures for aircraft holding at taxiways for post typhoon disruptions g. Activate Centralized Aircraft Tractor Deployment Procedure if necessary h. Regular update on the FRCS status, Stand Availability, Contingency Parking, Passenger Bus Availability and Weather Information (wind speed checks) in the AEC log i. Request TSI to untie all FGP crocodile at remote stands j. Request TSI to untie and reconnect all PCA hoses k. Arrange refueling for airside passenger buses l. Update CAF on Affected Flight Summary m. Remove all items blown by strong wind that are causing obstruction to aircraft or vehicle movements 	AD

	<ul style="list-style-type: none"> n. Standby AA pooled equipment at passenger apron for immediate deployment by the RHOs if necessary o. Consider the need to activate the typhoon baggage contingency procedure p. Update flight information through FIDS 	
4.0	ABD <ul style="list-style-type: none"> a. Weather alert dissemination by Baggage Hall PA system b. Ensure adequate manpower of the service contractors to meet the surge of aircraft movements after the typhoon c. Request ABRS team to operate additional facilities during recovery such as MS01, MS02, RTF, T1M and CTX d. Consider the need to activate the typhoon baggage contingency procedure e. Notify RHOs and contractor to prepare for resuming AABD operation in RTF and T1M 	ABD
5.0	ALD <ul style="list-style-type: none"> a. Weather alert dissemination to ALD franchisees by email and WhatsApp group b. Ensure adequate manpower of franchisees to meet the surge of aircraft movements after the typhoon 	ALD
6.0	LPAF <ul style="list-style-type: none"> a. Weather alert dissemination to LPAF franchisees b. Liaise with Franchisees to get prepared for services recovery c. Ensure franchisees to meet the surge of aircraft movements after the typhoon 	LPAF
7.0	TOD <ul style="list-style-type: none"> a. Restock / re-supply equipment and stocks for all PCT points b. Weather alert dissemination by AVMDS c. Update, in consultation with ADM, DMS, PA, website and mobile app d. Monitor the progress of activated contingency plans e. Hourly update on passenger counts at T1 & other passenger concourses f. Coordinate with AD to confirm the conditions of passenger steps before operation recovery and prepare umbrella for passenger steps without canopy if needed g. Stand down of Staff Resting Facility if activated 	TOD
8.0	LD <ul style="list-style-type: none"> a. Activate Ferry Rescheduling Control if required b. Update on Ferry/Bonded Bus service resumptions with FHA/BHA c. Liaise with bus companies on service resumption and explore the need for increased frequencies d. Update IAC and AEC on public transportation availabilities and post-typhoon resumption of routes and services e. Coordinate with relevant parties for possible extension of services beyond regular operating hours f. Monitor the progress of activated contingency plans g. Resume landside kerb's traffic arrangements h. Resume outdoor escalators at car park 1 when needed i. Update on landside transportation status table j. Inspect all roads network and landscape, deploy contractors to clear the road blockage when needed k. Ensure the readiness of the SkyPier Terminal premises, facilities and equipment before ferry/Bonded Bus services resume l. Disseminate information, in consultation with ADM, to public for resumption of ferry/Bonded Bus services via AA web-site and mobile app 	LD

	m. Confirm the cease of Contingency Airport Employee Shuttle (Airport <-> Tung Chung) if activated during typhoon period	
9.0	TSI a. Detach the canvas net from the PCA hose basket upon request by AD b. Detach the typhoon tie down straps and restore the airbridges service upon request by AD c. Resume SkyPier Terminal Pontoons to normal mode (if switched to survival mode) d. Untie all FGP crocodile at remote stands for resumption of aircraft servicing upon request by AD	TSI / AD / LD
10.0	AOFP a. Activate Staff Resting Facility stand down procedure b. Confirm the cessation of the facility and shuttle services c. Disseminate the facility information to airport staff	AOFP

End of BCP – H4

Business Continuity Manual

Business Continuity Plan: I1 HKIA Office Contingency Plan

		Signature	Revision	Effective Date
Updated By	Senior Manager, Administration	 Maggie Chan		
Reviewed By	Assistant General Manager BCP, SSBC	 Emily Chu	34	Nov 2023
Approved By	General Manager, SSBC	 David Jea		

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A. Introduction and Scope

1. The following procedures lay out the AA Office fallback locations, as well as the fallback priority and alerting procedures.
2. This Office Contingency Plan is reviewed and updated by Administration from time to time on a regular basis.
3. The AA Office Contingency Plan may be activated when ad hoc office accommodation are required during an emergency or when an office is temporarily closed down due to the followings:
 - a. Prolonged suspension of essential facilities, e.g. power supply; lighting, air conditioning, data network;
 - b. Office seriously damaged, e.g. by fire or water damage;
 - c. Suspected / confirmed infection by infectious disease, e.g. confirmed case of SARS or avian influenza, subject to the advice by the Health Department and decisions by company senior management.

B. Planning Assumptions and Space requirements

1. There are two contingency planning scenarios that have to be catered for.
2. One extreme scenario is that the whole HKIA Tower and/or HKIA Tower Two becomes unusable due to extensive damages from earthquake, tsunami, fire, CBRN contamination, infectious disease outbreaks, etc.
3. Second scenario is less extreme and more probable; 1 or 2 floors of the building becomes unusable due to fire, smoke and/or water damages.
4. It is felt that the extreme scenario has a very low probability and hence need not be considered.
5. The second scenario is more probable and is used as the basis for the following contingency plans.
6. There are AA offices located in areas other than HKIA Tower that their contingency fallback procedures are also covered by the following plans.
7. Fallback workstations shall be provided to offices in T1 or offices in HKIA Tower if for whatever reason they become unusable.
8. In terms of probability, it is felt that no more than 1 office location within T1 or at most, 1 whole floor within the HKIA Tower or HKIA Tower Two will be unusable at any one time.
9. Based upon this planning assumption, the headcount affected would be from 20 to about 120 staff.
10. HKIA Tower occupancy figures are that the average department size is from 20 to 50 staff with about 3 to 4 departments located on each floor.
11. If necessary, the plan is for affected departments to be relocated their essential staff to fallback office workstations located at various locations within T1 and at designated fallback workstations located at each floor within HKIA Tower.

12. In addition, non-essential staff may be directed to work from home.

C. Available Fallback Workstations

1. Fallback workstations are maintained in the following locations:
 - a. About 183 workstations in HKIA Tower L1 to L7 meeting rooms
 - b. 4 workstations in 5Y542

Meeting Room	No. of Workstations	Floor total
1A	6	20
1B	6	
1C	8	
2A	4	26
2B	4	
2C	4	
2D	6	
2E	8	
3A	25	39
3B	6	
3C	8	
4B	6	14
4C	8	
5A	6	20
5B	6	
5C	8	
6A	6	20
6B	6	
6C	8	
711	4	44
712 (Board Room)	22	
713	6	
715	12	
Total in HKIAT	183	

Office Room	Vacant Workstation
5Y542	4
Total in T1	4

2. HKIA Tower meeting rooms will be utilized for fallback workstations with WLAN data network.
3. ITD already have WLAN data network in place within the HKIA Tower meeting room areas.
4. The WLAN network is access controlled and will be activated when necessary by Administration/ITD.

5. T1 available workstations and vacant workstations in HKIA Tower are fully equipped with power, lighting, air-conditioning, furniture, telephone lines with handsets, data network, water dispenser, pantry items and stationery.
6. Fallback offices for General Managers and above are available in HKIAT's L7 and T1 Contingency Office 5Y542. Regular inspections to the contingency office and the facilities are carried out by Administration; any deficiencies should be rectified by the responsible parties.

Tasks	Action by
Floor plan with telephone no.	Assistant Manager, Premises
Power, lighting and air conditioning	Assistant Manager, Premises / TSI
IT network and printers	Assistant Manager, Premises / ITD
Furniture	Assistant Manager, Premises
Keys (attached to doors and furniture)	Assistant Manager, Premises
Telephone handset (marked with telephone no.)	Senior Officer, Office Services
Fax machine (marked with fax no.)	Assistant Manager, Records Management & Policy
Pantry items (include liquid soap and paper towel)	Assistant Manager, Records Management & Policy
Stationery	Assistant Manager, Records Management & Policy
Water dispenser and distilled water	Assistant Manager, Records Management & Policy

D. Fallback Locations & Priorities

1. The fallback locations that will be used in an emergency are dependent upon the nature of the incident and whether or not the intended fallback locations are affected by the incident itself, as well as the priority of the affected operations during that time.
2. Administration is responsible to maintain and update an inventory of fallback locations so that it is readily available for Management's information.
3. Ideally, the affected department shall be accommodated in T1 or HKIA Tower same as their original office location.
4. However, relocation to alternative office locations or split of department by teams at different locations may be required.

E. Activation Procedures

1. Notification
 - a. Administration received confirmation from Management or SSBC to evacuate an office.
 - b. Administration to confirm with SSBC and the affected departments for the affected personnel to be accommodated in the Contingency Office.
 - c. Distribute the contingency office entrance code, office layout plan marked with telephone number to ITD, SSBC and the affected personnel.

2. Upon activation of the plan by EDHRA, immediate actions to be taken by Administration include:

Tasks		Action by
2.1 Mobilization		
a.	Arrange movers	Senior Officer, Premises 9863 8641
b.	Forward telephone/fax no. to the Contingency Office (or to staff mobile phone) and arrange user group services etc.	Senior Officer, Office Services 9038 2137
c.	Relocate photocopier from 5Y529 (ITD) to 5Y542	Administration Officer, 9877 8206
d.	Relocate and set up PC and network hubs (relocate the notebook in HKIAT meeting rooms if necessary)	Assistant Manager, Premises 9187 9639
e.	Disinfect the computer / files or equipment before relocation (as necessary)	Assistant Manager, Premises 9187 9639
2.2 Arrange daily service		
a.	Janitorial service	Assistant Manager, Premises 9187 9639
b.	Mailing service	Administration Officer 6390 5219
c.	Staff shuttle (if necessary)	Senior Officer, Office Services 9038 2137
2.3 Others		
a.	Disinfect the affected office if that area is infected by infectious disease	Assistant Manager, Premises 9187 9639

F. Contacts

Item	Contact Personnel / Contact Details
Door code / Security	Senior Officer, Premises: 9863 8641 (5Y542 by Staff Card)
Mover	William Int'l Ltd: Hung Kwok Wing 9512 3735
Janitorial & disinfection service	Waihong: Ms Lau Kuen 9848 8624
Telephone and fax	PCCW: David Wong 9658 9828 / 2183 3022
IT Department	IT Manager (Infrastructure & Cybersecurity): Tony Lau 9091 6903
SSBC	Assistant General Manager BCP: Emily Chu 9150 3029

G. Social Distancing / Split Operations

1. There may be a need to provide social distancing and / or split operations to ensure appropriate separation of workstations and / or workforce, e.g. in an infectious disease outbreak situation.
2. If necessary, Health Department will provide social distancing / split operations guidelines for companies to implement.

3. Administration and relevant senior management will decide appropriate actions to take and inform decisions made to involved departments.
4. Actions to take to increase separation distances amongst the workforce may include the following:
 - a. Staggered working hours
 - b. Alternating work days
 - c. Separate office locations
 - d. Work from home
6. Work units within the IAC are to make use of their IAC Fallback Procedures should social distancing and / or split operations be required.

H. Standdown

1. Administration and relevant senior management will decide appropriate actions to take and inform decisions made to involved departments. In case the incident is not related to infectious disease, Human Resources may not be required to be involved.
2. Administration will coordinate the migration process back to original work locations.

Tasks		Action by
2.1 Mobilization		
a.	Arrange movers	Senior Officer, Premises 9863 8641
b.	Cancel forward of telephone/fax no. to the Contingency Office (or to staff mobile phone)	Senior Officer, Office Services 9038 2137
c.	Return photocopier from 5Y542 to 5Y529 (IT)	Administration Officer, 9877 8206
d.	Relocate PC and notebook to original office and meeting rooms	Senior Officer, Premises 9863 8641
e.	Clean contingency office	Assistant Manager, Premises 91879 639
2.2 Arrange daily service		
a.	Cancel janitorial service in contingency office and resume janitorial service in original office	Assistant Manager, Premises 9187 9639
b.	Resume normal mailing service	Administration Officer 6390 5219
c.	Cancel staff shuttle (if necessary) of contingency office	Senior Officer, Office Services 9038 2137
2.3 Others		
a.	Check inventory of contingency office	Senior Officer, Premises 9863 8641

END OF BCP – I1

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Business Continuity Manual

Business Continuity Plan: I2

Major Event Risk Assessment and Crowd Management Plan

		Signature	Revision	Effective Date
Updated By	Manager BCP, SSBC	 Mandy Hui		
Reviewed By	Senior Manager BCP, SSBC	 Emily Chu	31	Nov 2022
Approved By	General Manager SSBC	 David Jea		

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BCP – I2. Major Event Risk Assessment and Crowd Management Plan

<u>ITEM</u>	<u>SUBJECT MATTER</u>	<u>PAGE</u>
Table of Contents		
A.	Major Event Risk Assessment and Crowd Management Plan.....	I2.4
B.	Major Event Risk Assessment and Crowd Management Planning Template.....	I2.5
C.	Site Assessment: General guiding questions to assist risk assessment at the site(s)	I2.7

A. Major Event Risk Assessment and Crowd Management Plan

1. This is a crowd management planning template to be used for an anticipated major event to be held either Landside or Airside that may attract a large number of participants and/or onlookers.
2. Along with other procedures contained in this manual, this planning template will help in the crowd management planning and coordination needed amongst all relevant parties.
3. The planning template is divided into 2 parts;
 - a. Part A asks for a brief description of the anticipated major event including :
 - i. Its nature e.g. a protest or demonstration, or the arrival / departure of famous movie stars/singers/rock bands/particular individual(s) that may attract large number of people to the airport.
 - ii. The date, timings, duration, location(s) and movements of the participants of the event.
 - iii. The type of participants and/or onlookers anticipated e.g. young, old, handicapped, boisterous, confrontational, etc.
 - b. Part B asks for the nature and location of potential problems or hazards that are anticipated, along with their mitigation or risk control measures that are to be implemented.
4. Some general questions are included to help in the risk assessment at the site(s).
5. Risk assessment matrix to be used in Part B is shown below.

Risk Assessment Matrix		Consequences (1 = Lowest; 5 = Highest)				
		1	2	3	4	5
Likelihood (1 = Lowest; 5 = Highest)	1	C	C	C	C	B2
	2	C	C	C	B2	B1
	3	C	C	B2	B1	A
	4	C	B2	B1	A	A
	5	B2	B1	A	A	A

6. The Risk Priority will be assigned from the number 1 to the last identified risk where the smaller the number, the higher the priority of the perceived risk and hence, the sooner to be addressed by appropriate contingency plans.

B. Major Event Risk Assessment and Crowd Management Planning Template

Major Event Risk Assessment and Crowd Management Planning Template				
Part A : Major Event Description			Information Supplied By	Involved Parties
1	Name of the Event :			
2	Short Description of the Event :			
3	Date of the Event :			
4	Time and Anticipated Duration of the Event :			
5	Anticipated Route of the Event with relevant timings :			
6	Number of Anticipated Participants & Onlookers :			
7	Anticipated type(s) of participants and/or onlookers e.g. young, old, handicapped, boisterous, confrontational, etc.			

Part B : Assessment & Planning							
	Nature & Location of Potential Problems or Hazards	Risk Assessment			Risk Control Measures to be Implemented	Action by	Drills to be Held
		Likelihood	Consequences	Risk Priority			
1							
2							
3							
4							
5							
6							

C. Site Assessment: General guiding questions to assist risk assessment at the site(s).

Part A			
Assessing Staff :	Date and Time of Assessment :		
Brief Description of Event :			

Part B				
	Questions	Yes	No	Points to Note
1	Site / Venue			
a	Venue spacious enough to accommodate the expected number of people?			
b	Sufficient entrances and exits to/from the venue to ensure safe and orderly crowd arrival and departure?			
c	Transportation link(s) to and from the venue sufficient for the anticipated numbers of participants?			
d	Any conflicting or misleading direction signage in the venue or immediate vicinity?			
e	Any fixed or movable barriers, fences or glass doors / windows that have potential to break or collapse under the pressure / push by crowd?			
f	Any temporary features like booths, displays, etc. that may cause obstructions and/or blockages to crowd movement?			
g	Any slippery / steep stairs and/or slopes containing problems like uneven surfaces, uncovered holes?			
h	Fire escape signage within the venue in compliance with fire safety ordinances?			
i	Fire alerting systems and firefighting equipment in compliance with fire safety ordinances?			

j	Are there any elevated walkways or platforms within the venue from which people may fall, e.g. because of a lack of adequate railings?			
k	Any potential bottlenecks on routes expected to cause crowding / crushing dangers including buffer area, stairs, passages and escalators?			
l	Any conflicting points of cross junction between vehicular and pedestrian routes?			
m	Any fire / explosive hazards / inflammable and other DG materials that requires license and/or specific arrangements?			
n	Others matters to note			
2 Participants				
a	The nature of the crowd likely to cause concerns e.g. young kids, elderly or disabled people?			
b	The purpose of the crowd likely to cause problems, e.g. opposites parties meetings?			
c	Any misconduct expected from alcohol induced, incident aroused groups?			
d	Any dangerous activities that crowd may be involved in by either intent or brought on by circumstances (speakers with inflammatory speeches, appearances by mega-stars, etc.)?			
e	Adverse weather conditions expected to cause messy situation?			
f	Any other activities at the same time and/or location that may suddenly increase the number of people in the venue to cause crowding/crushing situations?			
g	Other matters to note			
3 Crowd Management Factors				
a	Sufficient manpower for crowd management?			
b	Staff familiar with the venue as well as with people movements, evacuation routes/plans, fire assembly points, etc.			
c	Staff have enough equipment and adequate training with the equipment to be used?			

d	Staff adequately briefed and trained for the event?			
e	Staff suitably dressed/uniformed?			
f	Adequate communication amongst deployed staff at all levels?			
g	Adequate communications with other departments involved in this event e.g. Police, MTR, bus franchisees, etc.?			
h	Appropriate CCTV coverage?			
i	Can we alter all layouts easily?			
j	Is there a joint coordination point at the site?			
k	Is there a joint control center staffed by all involved parties including Police and business partners?			
l	Any immediately available staff for ad hoc / emergency deployments if necessary?			
m	Others matters to note			

End of BCP – I2

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