



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									
	2. ORR Inputs Review by BCP									
	3. ORR Review Sign Off by GMs									
4	Final Business Continuity Review with Exercise Dates									
5	1. ORR Review Summary									
	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 are listed in the table below

Name of Department:	
Risk Review Period <i>[Current calendar year]</i>	

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 style="border: 0; border-top: 1px solid black; margin: 10px 0;"/> (Name)	Date:
Departmental General Manager <hr style="border: 0; border-top: 1px solid black; margin: 10px 0;"/> (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

- Below is the Risk Assessment Matrix showing different categories of risks.
- The priority of work to be done is to immediately start from those risks categorized as Severity “A”.
- Next priority are those risks in the Severity “B1” category.
- 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	i. Manual updated twice a year
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	i. Drill on yearly basis ii. Workshops x4/yr
								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	i. Drill on yearly basis

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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	c. TLPM003 Adverse Weather Procedure	
								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	i. Manual reviewed twice a year
								b. TLPM/032, No Land Link Procedures	
								c. BCM BCP-D1, No Land Link	i. Manual updated 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							b. Seawater Supply System Management Plan	i. Manual updated twice a year
	c. Mechanical Building Management System (MBMS)							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	
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	i. Manual updated twice a year
								b. AOM Part E, Section 2 : Contingency Procedure for Airbridge Operations (Airfield)	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	i. Manual updated twice a year
								b. AOM Part E, Section 1: Contingency Procedure for Aircraft Docking Guidance System (Airfield)	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	B2 ⁸ (L=4, C=2)	C ⁸ (L=3, C=1)	Y	Y	Y	Y	a. BCM BCP-E7, Water & Sewage System	i. Manual updated twice a year
	b. Sewage System							b. Hydraulic System (Pipeworks and Fixtures) Management Plan	
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 (L2=; 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 (L2=; 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 b. AD-AFD-034 Unmanned Aircraft System Detection System (UASDS) Operation Procedures	i. Manual update twice a year 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	Manual updates Training Exercise & drill
		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	Manual updates Training Exercise & drill
		SATS	3A	3C	Y	SATSHK Emergency Procedures Manual Chapter 9 & 12	Manual updates Training
2	Bomb warning	HAS	Moderate	Low	Y	HAS Crisis Management Manual Vol. 2 & 4	Manual updates Training
		MCAT	Retain	Retain	Y	MCAS EPM Chapter 5, 13 & 16 MCAS BCP Chapter 1.5 & 2.4.6 MCAS Quality Manual	Manual updates Training Exercise & drill
		SATS	3B	2C	Y	SATSHK Emergency Procedures Manual Chapter 4 & 12	Manual updates
3	Aircraft accident	HAS	High	Moderate	Y	HAS Crisis Management Manual Vol. 2,4 & 5	Manual updates Training Exercise & drill
		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	Manual updates Training Exercise & drill
		SATS	3A	2C	Y	SATSHK Emergency Procedures Manual Chapter 2 & 6	Manual updates Exercise & drill
4	Adverse weather	HAS	Moderate	Low	Y	HAS Crisis Management Manual Vol. 2 & 5	Manual updates Training Exercise & drill
		MCAT	Reduce	Reduce	Y	MCAS EPM Chapter 9, 13 & 16 MCAS BCP Chapter 1.4, 1.5 & 2.4.6 MCAS Quality Manual	Manual updates Exercise & drill
		SATS	4B	2C	Y	SATSHK Emergency Procedures Manual Chapter 8 & 11	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
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	Manual updates
		HAECO	---	Moderate	Y	HAECO BCPCH08 Epidemics and Pandemics	Manual updates
		PAPAS	3C	2B	Y	PAPAS Business Continuity Plan for Major Epidemic Outbreak	Manual updates Exercise & drill
2	Bomb Warning	CASL	N/A	N/A	Y	CASL Emergency Response Plan	Manual updates
		HAECO	---	High	Y	HAECO BCPCH04 Security Threat	Manual updates
		PAPAS	2D	2B	Y	PAPAS SMS Manual	Manual updates Exercise & drill
3	Aircraft accident	CASL	N/A	N/A	Y	CASL Emergency Response Plan	Manual updates Exercise & drill
		HAECO	N/A	N/A	Y	AAHK EPM	Manual updates
		PAPAS	3D	2C	Y	SMS Manual	Manual updates
4	Adverse weather	CASL	N/A	N/A	Y	CASL Emergency Response Plan	Manual updates
		HAECO	---	Ultra	Y	HAECO BCPCH07 Typhoon	Manual updates
		PAPAS	2C	2B	Y	PAPAS LMOPM, SMS Manual	Manual updates Exercise & drill

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	Manual updates
		MCAT	Retain	Retain	Y	MCAS EPM Chapter 13 & 16 MCAS BCP Chapter 1.5 & 5.5 MCAS Quality Manual	Manual updates Training Exercise & drill
		SATS	3C	2C	Y	SATSHK Business Continuity Plan Section 5	Manual updates
2	Loss of access to workplace - 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 1.5, 2.4.6 & 5 MCAS Quality Manual	Manual updates Training Exercise & drill
		SATS	3B	2C	Y	SATSHK Business Continuity Plan Section 5	Manual updates
3	Loss of ramp handling staff	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 & 2.4.6 MCAS Quality Manual	Manual updates
		SATS	3B	3D	Y	SATSHK Business Continuity Plan Section 10	Manual updates
4	Internal computer system failure	HAS	Moderate	Low	Y	HAS Crisis Management Manual Vol. 2, 3 & 4	Manual updates Exercise & drill
		MCAT	Reduce	Retain	Y	MCAS EPM Chapter 13 & 16 MCAS BCP Chapter 1.5 & 8.14 MCAS Quality Manual	Manual updates
		SATS	3B	3D	Y	SATSHK Business Continuity Plan Section 6	Manual updates
5	Communication system failure	HAS	Low	Insignificant	Y	HAS Crisis Management Manual Vol. 2, 3 & 4	Manual updates
		MCAT	Reduce	Retain	Y	MCAS EPM Chapter 13 & 16 MCAS BCP Chapter 1.5 & 6.1 MCAS Quality Manual	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
		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	Overfill 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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		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
		HAECO	---	Moderate	Y	HAECO IT system Breakdown	Manual updates Training Exercise & drill
		PAPAS	2C	1C	Y	PAPAS Business Continuity Plan	Manual updates Exercise & drill

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2	Communication system failure	CASL	N/A	N/A	Y	Business Continue Plan for abnormal operation	Manual updates
		HAECO	---	Moderate	Y	HAECO 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
		HAECO	---	Moderate	Y	HAECO 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
		HAECO	---	Moderate	Y	HAECO 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
		HAECO	---	Moderate	Y	HAECO 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
		HAECO	N/A	N/A	Y	HAECO 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
		HAECO	---	High	Y	HAECO 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.

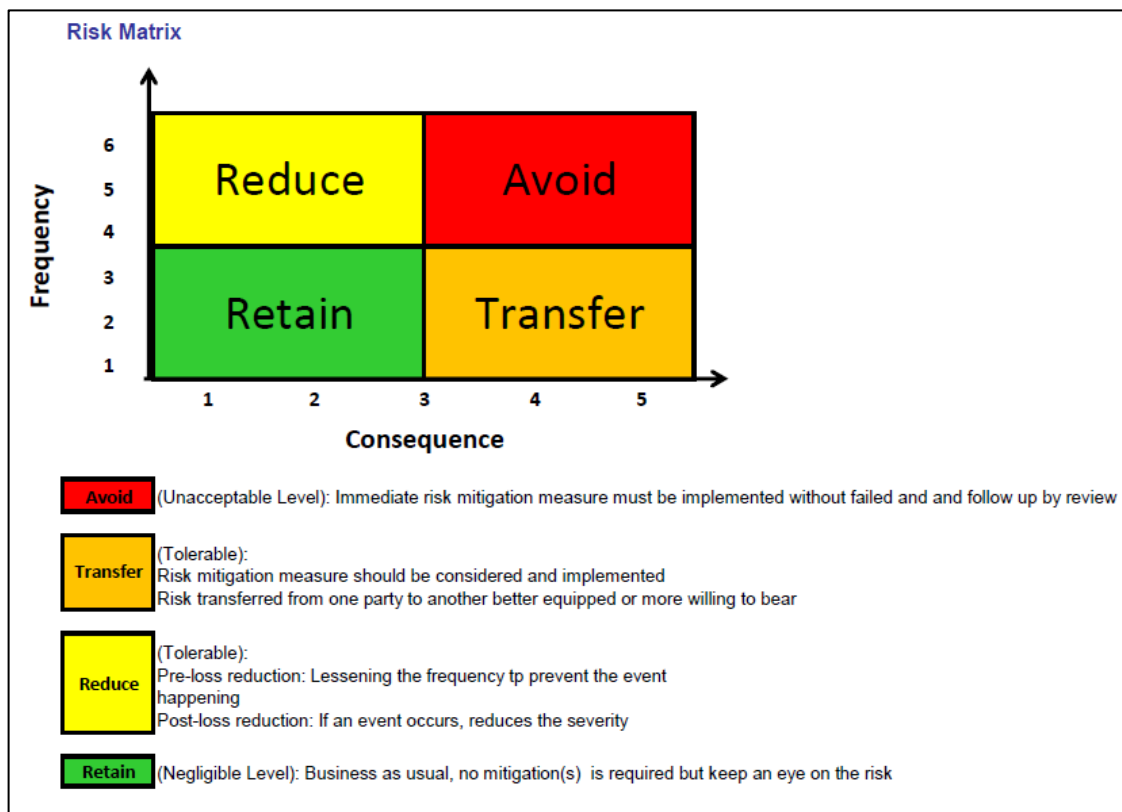
Appendix I : Business Partners Risk Assessment Matrix

Hong Kong Airport Services Limited (HAS)

RISK MATRIX					
Likelihood Level	Consequence Level				
	(1) Insignificant	(2) Minor	(3) Moderate	(4) Major	(5) Catastrophic
(A) Almost certain	H	H	E	E	E
(B) Likely	M	H	H	E	E
(C) Moderate	L	M	H	H	E
(D) Unlikely	L	L	M	H	E
(E) Rare	L	L	M	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	36
High	5	5	10	15	20	25	30
Significant	4	4	8	12	16	20	24
Moderate	3	3	6	9	12	15	18
Low	2	2	4	6	8	10	12
Very Low	1	1	2	3	4	5	6

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	INSIGNIFICANT	LOW	LOW	MODERATE	HIGH
Rare 1	INSIGNIFICANT	INSIGNIFICANT	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)
INSIGNIFICANT	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		<i>Impact</i>				
		1 – Insignificant	2 – Minor	3 – Moderate	4 – Major	5 – Massive
<i>Likelihood</i>	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			Rating	Descriptor
		From	To	Scale		
1	Insignificant	0%	5%	<3	1	Insignificant
2	Minor	5%	10%	3 - 5	2	Minor
3	Moderate	10%	30%	5 - 20	3	Moderate
4	Major	30%	70%	20 - 40	4	Major
5	Extreme	70%	NA	>40	5	Extreme

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 works 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（不須採取危害控制措施）

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
			A	B	C	D	E
Impact	Catastrophic 災難性	I	Extremely High				
	Critical 危急	II	High				
	Moderate 中等	III	Medium				
	Negligible 微不足道	IV	Low				
			Risk Levels				

		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 incombible 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	Negligible	Up to HKD 10m (or <0.1% 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	Minor	HKD 10-100m (or 0.1-1% of operating budget)	Disruption resulting in a delay (>15 mins) to half or more of the daily passengers	Strategy and/or business plans requires updates	Extended negative local media coverage / short term local brand issues	Reportable breaches but no significant business impact	Multiple minor injuries
3	Minor/Moderate	HKD 100m-10m (or 0.1-1% of operating budget)	Disruption (up to 2 days) to critical systems or significant part of the airline is grounded for up to 2 days	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	Major	HKD 1-10m (or 1-10% of operating budget)	Disruption (2 to 5 days) 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 breach or Major prosecutions or litigation, or Partial suspension permits or licenses	Single fatality / severe permanent disability to 1+ persons
5	Catastrophic	Above HKD 10m (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	Executive convicted or jailed, or Asset liquidation, or AOC fully or temporarily suspended	Multiple fatalities / severe permanent disability (50 persons)

		Vulnerability Matrix					
		CONTROL			CRISIS		EXTERNAL FACTOR (%)
1	N.P.	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)
2		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	Ad-hoc plans 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)
3		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)
4		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)
5	Low	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)

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:

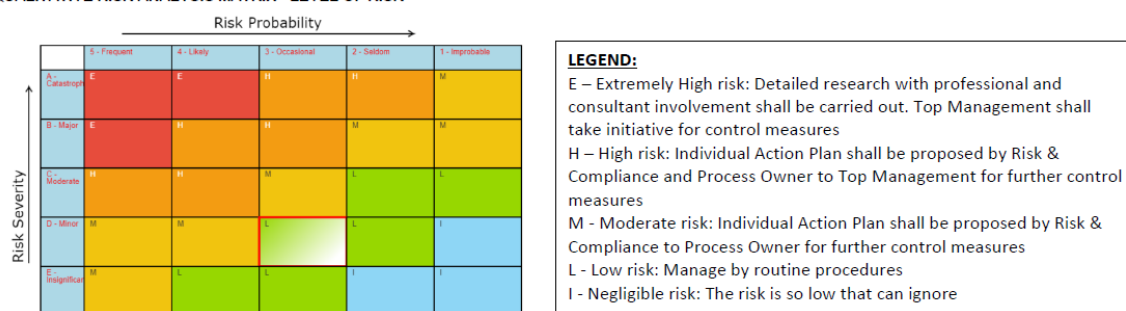
QUALITATIVE MEASURES OF RISK PROBABILITY

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)

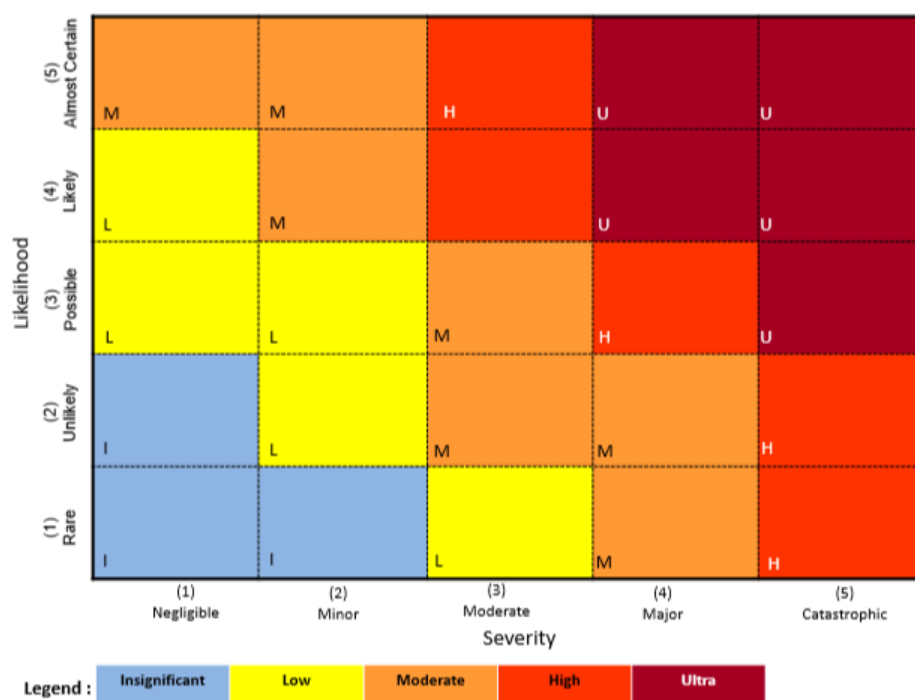
Table 3 – Risk Rating

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)
		(A) Negligible • Little consequences	(B) Minor • Nuisance • Operating limitations • Use of emergency procedures • Minor incident	(C) Major • A significant reduction in safety margins • A reduction in the ability of the operators to cope with adverse operating conditions as a result of increase in workload, or as a result of conditions impairing their efficiency • Serious incident • Injury to persons	(D) Hazardous • A large reduction in safety margins, physical distress or a workload such that the operators cannot be relied upon to perform their tasks accurately or completely • Serious injury • Major equipment damage	(E) Catastrophic • Equipment destroyed • Death of person
Risk Severity						
Very High (5C, 5D, 5E, 4D, 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, 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, 3B, 1B, 1C)		Acceptable				

End of ORR