

For discussion
on 17.7.2001

Legislative Council Panel on Economic Services

Operation of Hong Kong International Airport During and After Typhoon Utor

Introduction

This paper provides an account of the operation of Hong Kong International Airport (HKIA) during and shortly after typhoon Utor during the period 5-7 July 2001, and the measures taken to ensure the safety of air traffic and passengers and alleviate the inconvenience caused.

Background

Weather Conditions

2. Hong Kong was under the influence of Typhoon Utor during the period 5 -7 July when:

- Tropical Cyclone Signal No. 3 was hoisted at 1045 hours on Thursday, 5 July, replaced by Signal No. 8 NE at 1930 hours, then Signal No. 8 NW at 2340 hours that evening;
- Tropical Cyclone Signal No. 8 SW was hoisted at 0940 hours on Friday, 6 July, and replaced by Signal No. 3 at 1340 hours that afternoon; and
- Tropical Cyclone Signal No. 3 was lowered at 1120 hours on Saturday, 7 July.

3. At around 1800 hours on Friday, 6 July 2001, Utor was well inland about 200 km away from Hong Kong. Nevertheless, its intense outer rainbands started to affect the western part of the territory, including HKIA. Forecasts of winds of 56 km/h (30 knots) or more, with squally showers and heavy rain, were issued from 1900 hours onwards. Localised squalls associated with those rainbands brought winds of over 56 km/h (30 knots) to the airport. Crosswinds of 46-74 km/h (25-40 knots) were recorded on the airfield after 2100 hours.

Turbulence, windshear and microbursts were also detected. Winds at the airport only began to gradually moderate after daybreak on 7 July.

4. Utor was unusual in that it took more than 40 hours after landfall before it completely dissipated, breaking the record of 30 hours set by Typhoon Hope in 1979.

Flight Disruptions

5. Owing to the unusually poor weather conditions experienced at HKIA during and shortly after Utor, many flights were cancelled. The situation was aggravated by other factors, such as congestions and the knock-on effect caused by Utor's disruptions to nearby airports. As a result, there were major flight disruptions at HKIA for a continuous period of 31½ hours (from around 1930 hours on 5 July to around 0300 hours on 7 July). During this period, there were only 220 aircraft landings and 152 take-offs, compared to 360 arrivals and 355 departures scheduled, representing a shortfall of 343 flights. Further details of flight movements during this period are provided in Attachment 1.

6. Disruptions at HKIA were particularly serious in the few hours after 1830 hours on 6 July, during which severe weather conditions including heavy rain, severe turbulence, windshear, microbursts and strong cross winds were experienced from time to time. Many pilots decided not to take off or land. There were some 60 diversions and 29 aircraft which had to carry out missed-approach procedures. From 1900 to 2200 hours, 44 inbound flights landed while only 6 outbound flights took off. All of the 75 parking stands were occupied and aircraft had to be temporarily accommodated at the cargo and maintenance aprons as well as on a taxilane. At the height of the congestion, 112 aircraft were parked at HKIA – almost double the number during normal operations.

7. With the improvement in weather conditions allowing landing and take-off to be conducted safely, flight operations at HKIA gradually returned to normal starting from daybreak on 7 July 2001. However, due to the significant volume of traffic within the Hong Kong airspace, flow control by air traffic control was required until late evening. The main task for HKIA was to clear the backlog of aircraft and passengers. Working closely with CAD, government departments, airlines, ramp handlers and line maintenance franchisees, AA was able to efficiently reinstate normal operations by midnight, i.e. within 16 hours as the wind began to moderate after 0800 hours.

Passengers

8. The flight disruptions caused significant inconvenience to passengers. At the peak, some 17,000 passengers were in the terminal building. With about 5,000 passengers either accommodated in hotels or opted to accept cash allowance to take transportation home, some 12,000 passengers remained in the terminal building overnight. Given the enormous demand, airlines were unable to provide hotel accommodation, which was already in short supply, to all of their passengers, who in some cases chose to remain in the airport. Some passengers also had to wait in their aircraft for an extended period of time. In some cases, this was the result of pilots' decision to wait (though rather unsuccessfully) to see if they could catch a window of improvement in local weather conditions instead of cancelling the flights outright. In other cases, it was the need to wait for the availability of an aerobridge-served stand (48 in total) since it would be unsafe to deplane at remote stands and for winds to moderate enough to allow the safe operation of aerobridges.

Measures taken by AA

Emergency Coordination

9. Safety is AA's primary consideration and top priority at all times and under all circumstances. Pre-typhoon planning meetings were held throughout 5 July within AA and between AA and business partners and Government departments to assess the impact of the forecast track of the typhoon on airport operations, determine necessary precautionary measures and agree follow-up actions. In accordance with the Airport Emergency Procedures Manual, AA activated the HKIA Airport Emergency Centre (AEC) at 1930 hours on Thursday, 5 July (upon hoisting of Tropical Cyclone Signal No. 8). The AEC remained open for over 54 hours until 0145 hours on Sunday, 8 July (after resumption of normal operations for a steady period). Additional details on the AEC are provided in Attachment 2.

10. With the benefit of regular emergency drills and exercises, and supported by other concerned parties such as airlines, ramp handlers, CAD, the Police, etc., AA staff followed and executed emergency procedures effectively and professionally. The safety of passengers, other airport users and staff was ensured throughout the period, despite the severe weather conditions on the airfield. No one was injured and passengers who fell ill were provided with medical care and/or sent to the hospital promptly.

11. Apart from ensuring safety, AA also took a series of measures to alleviate the inconvenience to passengers caused by flight disruptions. Catering

outlets and major retail licensees in the terminal building were alerted as early as 0900 hours on 5 July to get extra stock, arrange additional manpower and make special operational arrangements to cope with the expected increase in passengers, well-wishers and meeters and greeters who might be present in the terminal building for an extended period of time. A continuous and steady supply of food was available from a range of outlets, with AA maintaining close liaison with these outlets. Details on the operation of the catering outlets and convenience store in the terminal building are listed in Attachment 3. Other basic needs of passengers (e.g. water and blankets) were also catered for. Moreover, AA liaised with transport companies to ensure that there was continuous and safe land transport between the airport and the urban area notwithstanding the poor weather conditions.

Communication

12. Communication among AA, CAD, the Police, airlines/handling agents, airside bus operators, ramp handlers, the Aviation Security Company Ltd. was effective through the AEC. This has been important in ensuring the safety of passengers and airport staff throughout the period. It also facilitated the restoration of airport operations when weather conditions improved.

13. Public announcements were made every 15 minutes by AA at the airport to advise passengers that:

- due to the bad weather conditions, some of the arrival and departure flights would be delayed; and
- they should contact the airlines if their flight was not listed on the flight information display system.

In addition, the following arrangements were made by AA to inform and update the public on flight disruption and related matters:

- an advisory note was posted on the AA website to remind passengers to check with their airlines for flight details before leaving for the airport;
- special announcements were sent to radio and television duty announcers to broadcast the above message to the public;
- regular updates (6 times a day during the 54-hour period when the AEC was activated) were sent to all media organisations on the number of flights cancelled/delayed together with the above advisory note; and
- a large number of media enquiries were handled throughout the period.

Way Forward

14. A series of debriefing meetings have been held within AA, and between AA and other concerned parties, such as CAD, airlines and ramp handlers, with a view to identify areas for improvement to the airport operation procedures. Matters to be looked into will include the allocation of aircraft parking stands, provision of supporting equipment (e.g. equipment for towing of aircraft), staff deployment, circumstances under which flights should be cancelled, information to passengers and the public etc. In addition, AA is working with airlines and other airport-based organisations to further enhance communication and coordination during typhoons and emergencies.

15. In respect of communication with the travelling public, AA will:

- increase the number of airline emergency contact numbers available on the AA website to enable passengers to obtain information on their flights from the respective airlines;
- increase, where practicable, the amount of information available to the passengers regarding flight disruptions, through announcements on the public address system in the passenger terminal; and
- work with the Airline Operators Committee (AOC) and airlines to explore means to further improve communication between airlines and their passengers.

16. To ease the discomfort of passengers during their stay in the terminal building owing to flight delay or cancellation, AA will:

- work with the catering outlets in the terminal building to improve catering services to passengers during periods of disruption;
- facilitate arrangements between airlines and the catering outlets regarding the use of airline refreshment coupons (arrangements already under way);
- review with the AOC contingency arrangements to provide additional food and refreshments to passengers, through arrangements with the airline catering companies (arrangements already under way);

- increase the frequency of re-supplying refreshment vending machines during periods of disruption;
- increase the availability of free bottled drinking water in the departure lounge of the terminal building to cater for the larger number of passengers during periods of flight disruption;
- make structural improvements to the transfer desks and airline service desks to facilitate more orderly queuing and to improve passenger and staff safety;
- review with the Police crowd control contingency arrangements and the provision of portable barriers in other areas of the terminal building to enable better control and facilitation of passengers; and
- implement measures to improve ventilation in crowded areas of the terminal building during periods of disruption.

Questions from Members

17. Specific questions raised by the Honourable Emily Lau Wai-hing and the Honourable Fred Li Wah-ming and key points from our formal replies are at Attachments 4-7.

Airport Authority
July 2001

Attachment 1

**Hong Kong International Airport
Flight Disruptions
During and After Typhoon Utor**

Period	Weather Condition	Tropical Cyclone Signal	Scheduled		Actual Aircraft Movements		
			Arrivals	Departures	Landings	Takeoffs	Diversion(s)
5 July 19:30- 6 July 13:40	Strong to gale force winds affecting Hong Kong.	No. 8	172	171	61	83	1
6 July 13:41- 6 July 19:00	Winds moderating in HK as Utor moved further away towards western Guangdong.	No. 3	102	106	115	63	16
6 July 19:01- 6 July 22:00	Utor's outer rainbands started to affect western part of territory, bringing squalls and heavy rain to the airport.	No. 3	53	40	44	6	24
6 July 22:01- 7 July 03:00	Severe weather continued.	No. 3	33	38	0	0	24
7 July 03:01- 7 July 11:20	Heavy rain at the airport easing off around 0300 hours. Strong to gale force winds began to moderate after 0800 hours.	No. 3	58	67	26	49	0
7 July 11:21- 7 July 16:00	No. 3 lowered as winds decreased further.	-	106	97	103	81	0
7 July 16:01- 7 July 24:00	Cloudy weather with occasional showers. Utor finally dissipated on 8 July over Guangxi.	-	127	129	160	166	0

HONG KONG INTERNATIONAL AIRPORT
AIRPORT EMERGENCY CENTRE

1 Purpose

The Airport Emergency Centre (AEC) is located in the Passenger Terminal Building (PTB) and is activated during an airport emergency to:

- act as the command and control centre for airport operations during emergency situations;
- mobilise airport-wide resources to minimise any likely operational impact;
- facilitate emergency response and information consolidation and dissemination amongst the airport community and to the general public; and
- enable the rapid restoration of HKIA back to normal operations.

2 Activation

The AEC will be activated during any one of the following emergencies:

- Aircraft Accident
 - Full Emergency
 - Bomb Threats
 - Major Security Incident (Police)
 - Fire in PTB and GTC
 - Raising of No. 8 Typhoon Signal
 - Public Health Emergencies
 - Post Disruption Flow Control

3 Staffing

Depending on the type of emergency or airport disruption, representatives from relevant AA departments e.g. Terminal Operations, Airfield Operations, Landside Operations, Corporate Relations, Maintenance Services will be present in the AEC together with representatives from AVSECO, Civil Aviation Department (CAD) - Air Traffic Control (ATC),

Hong Kong Police, Airline Operators Committee (AOC), airlines/handling agents, Government Information Services Department, airside bus franchisee, ramp handling franchisees and line maintenance franchisees.

4 Roles and Responsibilities of Representatives

The main roles and responsibilities of the AEC during a typhoon are to:

- liaise and coordinate with CAD-ATC, AOCC, Apron Control Centre (ACC), AOC and self-handled airlines/handling agents in respect of flight information to ensure that displays are updated and are as accurate as possible;
- coordinate with franchisees in respect of aircraft parking stand allocation and ramp activities;
- ensure that any facility that may be damaged are repaired as soon as possible; and
- coordinate the post typhoon recovery operation to ensure normal operation as soon as possible.

In order to achieve the above, an Operations Recovery Group (ORG) comprising representatives from AA, ramp handling franchisees, line maintenance franchisees and airlines/handling agents will be set up in the AEC with the objective of ensuring a rapid return to normal operations. The ORG will:

- coordinate the rescheduling of aircraft movements;
- exchange information and coordinate an airport wide response to arrivals, departures, delays and cancellations; and
- coordinate the response to any flow control measures imposed by CAD-ATC and other Flight Information Regions on the PTB and aircraft parking stands; and decide measures on pooling resources both within the PTB and on the apron.

HONG KONG INTERNATIONAL AIRPORT

CATERING OUTLETS IN THE PASSENGER TERMINAL BUILDING

Name of Outlet	Regular Choice of Food	Opening Hours During and After Typhoon Utor				Comments
		5 July	6 July	7 July	8 July	
In the Airside Restricted Area		5 July	6 July	7 July	8 July	
Sky Garden	Asian-style food court including rice, noodles, porridge, Asian cuisine, Chinese barbecued food	0700-2330	0700 - 0300 7 July	0700 - 0300 8 July	0700 - 2330	<ul style="list-style-type: none"> Experienced shortage of certain food items but maintained continuous supply of most popular hot foods e.g. rice and noodles
Sky Windows	Asian-style food court including rice, noodles, Asian cuisine, Chinese barbecued food, waiter-service area	Non-stop service				<ul style="list-style-type: none"> Experienced shortage of certain food items but maintained continuous supply of most popular hot foods e.g. rice and noodles Converted waiter-service area to self-service area to maximise seating capacity
Sky Dance	Western-style food court including pastas, rice, noodles, sandwiches, salads, sushi, cakes, waiter-service area	0700 - 2330	0700 - 0200 7 July	0700 - 2330	0700 - 2330	<ul style="list-style-type: none"> Experienced shortage of certain food items but maintained continuous supply of basic hot foods e.g. rice and noodles Converted waiter-service area to self-service area to maximise seating capacity

Name of Outlet	Regular Choice of Food	Opening Hours During and After Typhoon Utor				Comments
Take Off	Western-style food court including pastas, sandwiches, salads, cakes, noodles, beer garden	0730 - 2230	0730 - 0300 7 July	0630 - 2230	0730 - 2230	<ul style="list-style-type: none"> • Some food items were sold out but alternatives were offered to passengers (some of whom were not pleased that their choice was not available) • Some passengers lingered at the queue to maximise the meal coupons from the airlines • Airlines arranged take-away food from Take Off to boarding gates

Name of Outlet	Regular Choice of Food	Opening Hours During and After Typhoon Utor				Comments
		5 July	6 July	7 July	8 July	
In the Landside Area		5 July	6 July	7 July	8 July	
Memories of Hong Kong	Asian-styled café including rice, noodles, Asian cuisine, Chinese barbecued food	non-stop service 0600 5 July - 0200 7 July		0600 - 2400	0600 - 2400	<ul style="list-style-type: none"> Experienced shortage of certain food items but maintained continuous supply of most popular hot foods e.g. rice and noodles
Grappa's + A Hereford Beefstow International Steakhouse	Western-style restaurant including pastas, pizzas, salads, steaks, cakes	0630 - 2300	0630 - 2400	0630 - 2300	0630 - 2300	<ul style="list-style-type: none"> No major problems encountered
Katie O' Connors	Sandwiches, alcoholic & non-alcoholic beverages,	0700 - 2400	0700 - 0030 7 July	0700 - 2400	0700 - 2400	<ul style="list-style-type: none"> No major problems encountered Smoking provision is provided
Maxim's	Chinese dim-sum restaurant, Chinese specialty dishes, rice & noodles, Chinese barbecued food	0630 - 2330	0630 - 2330	0630 - 2330	0630 - 2330	<ul style="list-style-type: none"> Some items were sold out but alternatives were suggested to passengers Normal operation maintained without having to turn away any passengers
Banana Leaf Asian Food Square	Asian-style fast food including rice, noodles, curry, salad	0530 - 2300	0530 - 0130 7 July	0530 - 2300	0530 - 2300	<ul style="list-style-type: none"> Sufficient stock throughout Normal operation maintained without having to turn away any passengers

Name of Outlet	Regular Choice of Food	Opening Hours During and After Typhoon Utor				Comments
Bravo le Café	Western-style fast food including pastas, rice, Japanese noodles, sandwiches, salads, cakes	0530 - 2400	0530 - 0200 7 July	0530 - 2400	0530 - 2300	<ul style="list-style-type: none"> • Sufficient stock throughout • No major problems encountered
Café de Coral	Chinese -style fast food including rice, noodles, curry, sandwiches, Chinese barbecued food, salad	Non-stop service			0630 - 2400	<ul style="list-style-type: none"> • Sufficient stock throughout • No major problems encountered

Name of Outlet	Regular Choice of Food	Opening Hours During and After Typhoon Utor				Comments
		5 July	6 July	7 July	8 July	
In the Landside Area		5 July	6 July	7 July	8 July	
Oliver's	Specialty sandwiches, salads, cakes,	0630 - 2400	0630 - 2400	0630 - - 2400	0630 - 2400	<ul style="list-style-type: none"> • Some items were sold out but alternatives offered to passengers • No major problems encountered
McDonald's	Hamburgers & chips	0630 - 2400	0500 - 0130 7 July	0500 - - 0130 7 July	0630 - 2400	<ul style="list-style-type: none"> • No major problems encountered.

Convenience Store in the Passenger Terminal Building

Name of Outlet	Regular Choice of Food	Opening Hours During and After Typhoon Utor				Comments
		5 July	6 July	7 July	8 July	
In the Landside Area		5 July	6 July	7 July	8 July	
Circle K	24-hour convenience store offering sandwiches, packaged foods, snack food, packaged drinks, hot coffee & tea	Non-stop service				<ul style="list-style-type: none"> No major problems encountered.

Letterhead of Office of Emily Lau, Legislative Councillor

Attachment 4

9 July 2001

By fax and by post

Mr. Victor Fung
Chairman
Airport Authority
1 Cheong Yip Road
Hong Kong International Airport
Lantau
Hong Kong

Dear Mr Fung,

I am writing to express my grave concern at what happened in the Chek Lap Kok International Airport in the last few days. According to news media reports, thousands of people were stranded at the airport due to the effects of Typhoon Utor and industrial action by Cathay Pacific pilots.

Chek Lap Kok is a world class airport which has picked up a number of awards, and it is shocking to see it being plunged into chaos with some passengers describing it as "a refugee camp".

Last week scenes of chaos at the airport were flashed around the world. This could have a negative impact on the HKSAR's efforts to become a regional aviation hub. The many complaints and accusations from passengers and their relatives have tarnished Hong Kong's image.

Under section 5 of the Airport Authority Ordinance, the A.A. is responsible for operating the airport to achieve the objective of maintaining Hong Kong's status as a centre of international and regional aviation. This involves working closely and liaising with the airlines and all other partners at the airport. Thus the A.A. has a pivotal co-ordinating role to play, particularly during a crisis. Failure to do so is dereliction of duty.

While I appreciate the A.A. cannot be held responsible for the typhoon or the Cathay industrial dispute, I think the A.A. should have anticipated the outcome and put the staff on full alert. Unfortunately, the scenes of chaos betrayed a lack of crisis management.

Given the gravity of the matter and the wide public concern, I urge the A.A. to conduct an urgent investigation into the chaos and make recommendations on how to avoid such upheavals in future. This is important because Hong Kong is at the onset of the typhoon season and there is no end in sight to the Cathay industrial dispute.

In view of the inconvenience, aggravation and financial loss caused to thousands of passengers and their relatives, the A.A. board and senior management should apologize to the public over the fiasco. I would also like to have answers to the following questions:

- 1 Was an emergency centre set up throughout the period to deal with the crisis?
- 2 Was senior management closely involved in directing the staff?
- 3 Did senior management liaise closely with the airlines and other partners to ensure smooth and efficient operation of the airport?
- 4 Was additional staff deployed to deal with the crisis? If so, how many and when did they report on duty?
- 5 Are there manuals on crisis management and are drills being conducted regularly? When was the last drill held?
- 6 How much economic loss has the chaos caused to the A.A.?
- 7 Why were planes kept on the tarmac for hours, with passengers stuck in their seats?
- 8 Why were planes parked on the tarmac not moved to the perimeter of the airport to make room for other flights to take off and land?

- 9 Did the A.A. try its best to facilitate passengers getting up-to-date and accurate information from the airlines?
- 10 Were the toilets kept clean and well supplied?
- 11 Were the restaurants warned to stock up with food and drinks?
- 12 Were blankets supplied to passengers who were forced to spend the night at the airport?
- 13 Were sufficient police officers and security guards deployed to maintain order?

I urge the A.A. board to hold an urgent meeting to review the fiasco and set up a panel to investigate the problems. I also hope the Legislative Council Economic Services Panel will hold a special meeting to discuss this matter, hence I am copying this letter to the Chairman of the panel, the Hon. James Tien and to the Secretary for Economic Services, Ms Sandra Lee. I am also sending a copy of this letter to the Chief Executive, Mr. C.H. Tung, for his information.

Yours sincerely

Emily Lau

Answers to Questions from The Honourable Emily Lau Wai-hing

- 1) The Airport Emergency Centre (AEC) was activated at 1930hrs on Thursday 5 July and remained open until 0145hrs on Sunday 8 July, a full 54¼ hours. Pre-typhoon planning meetings took place throughout the day of 5 July prior to AEC activation.
- 2) AA, CAD-ATC, airline and ground service company senior management were present and directed operations throughout the incident.
- 3) AA senior management liaised closely with senior airline and ground service operator management both in the operational areas and in the AEC throughout the incident period.
- 4) In addition to the normal AA operational team of 84 staff, more than 70 additional staff were called back to assist during the period.
- 5) AA produces, maintains and distributes an Emergency Procedures Manual as part of the Aerodrome Licensing requirements. The manual details contingency and recovery procedures covering a multitude of emergencies which can affect airport operations. Drills in each of these areas are held frequently. In addition, full scale emergency exercises are held annually for aircraft accidents and hijack incidents. The recent annual aircraft accident exercise 'Exercise CLK 2001' which took place on 19 June 2001 is an example.

Briefings combined with desk top exercises relating to pre- and post- typhoon handling are held prior to the onset of the typhoon season with refresher briefings taking place throughout. The 2001 typhoon briefings commenced on 18 May and was repeated on 31 May.

- 6) The severe weather conditions affected normal flight operations at HKIA for an extended period of time. As a result, there was a shortfall of some 140 arrival flight landings during the disruption period (actual landings versus scheduled). This translates to landing fees in the order \$2 million. Diverted passengers subsequently returned to Hong Kong after normal operations resumed at HKIA.
- 7) Due to severe cross winds, only 6 departures were possible from 1900hrs on Friday 6 July to 0300hrs on Saturday 7 July. These were made between 2000hrs and 2100hrs due to a temporary improvement in conditions. Throughout this period and the night, forecast for the airport was for wind speeds of 56km/h (30 knots) or more, with squally showers and heavy rain. It is believed that pilots of ready-to-go aircraft were waiting for an opportunity of winds easing off temporarily so as to depart immediately. It is not uncommon for such 'windows' of lighter winds to occur in between rain cells from past experience as the winds were associated with the heavy rain. Indeed, winds did decrease temporarily between 2000 and 2030 hrs allowing some flights to depart. There were also wind decreases at other times. However, the extent of the speed decrease and the duration were not sufficient to allow other flights to

do so. Turbulence, windshear and microbursts were also detected during the period. Between 2030 and 2100 hrs those ready-to-go aircraft deplaned passengers into the terminal building with a request for passengers to report back each hour. The inclement weather did not improve significantly before daybreak.

As the 48 aerobridge-served stands were fully occupied, arrival aircraft were parked at the remote stands. Due to the strong wind conditions, it was not safe for arrival aircraft to deplane their passengers at the remote stands. They had to wait for the first available aerobridge-served stands to begin deplaning their passengers safely.

- 8) During this period, 23 aircraft were towed away from the terminal building to allow inbound aircraft to dock at the aerobridge-served gates to deplane passengers. Only when flights were cancelled could this be done as all other aircraft were still waiting to depart when “windows” of lighter winds occurred.
- 9) Procedures are in place for airlines to transmit revised flight departure times to the AA Airport Operations Control Centre (AOCC). The AA then provides this information to passengers via the Flight Information Display System (FIDS) and through the public address system. In order to assist airlines, AA made frequent announcements on the Public Address system to inform passengers of the weather situation and to apologise for inconvenience caused.
- 10) The toilet cleaning contractor was instructed to retain additional staff throughout the disruption period. No complaints regarding the cleanliness of the toilets have been received so far.
- 11) Catering outlets and major retail licensees were first alerted at 0900hrs on Thursday 5 July to be prepared with extra stock, arrange additional manpower and make special operational arrangements to cope with the expected increase in passengers, well-wishes and meeters and greeters who could be present in the terminal building for an extended period of time. AA maintained close contact with the catering outlets throughout the period and also inspected their facilities to check that they were in order. A continuous and steady supply of food was available from a range of outlets. Although some passengers could not have their first choice of food items, they were offered alternatives and other options.
- 12) AA has approximately 1,000 blankets which were made available to airlines to distribute to passengers in the terminal building. In total of 4,000 airline blankets were distributed to passengers.
- 13) In addition to their normal roster, police strength and airport security in the terminal building were re-enforced from midnight 6 July and maintained throughout 7 July. Sufficient numbers of Police officers and security guards were present throughout the building particularly in the more congested areas of the check-in hall, transfer areas and airline services desks to ensure the safety of all present. As a result, no one was hurt or injured throughout the period.

ANSWERS TO QUESTIONS FROM
THE HONOURABLE FRED LI WAH-MING

- 1) During the disruptions to operations at HKIA for a continuous period of more than 30 hours, there were only 220 aircraft landings and 152 take-offs compared to 360 scheduled flight arrivals and 355 scheduled departures, representing a shortfall of 343 flights. At the peak, some 17,000 passengers were in the terminal building. With about 5,000 passengers either accommodated in hotels or opted to accept cash allowance to take transportation home, some 12,000 passengers remained in the terminal building overnight. Given the enormous demand, airlines were unable to provide hotel accommodation, which was already in short supply, to all of their passengers, who in some cases chose to remain in the airport. The volume of origin/destination cargo (exports/imports) was not affected as diverted flights returned to HKIA with their cargo upon restoration of normal operations.
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- 2) Fully tested and drilled procedures for handling flight disruptions are in place at Hong Kong International Airport. Flight delays are reported to AA by the airlines so that updates can be accurately reflected in the Flight Information Display System (FIDS) for dissemination to passengers. When flight delays are expected a revised estimated time of departure (ETD) is set and passengers are handled accordingly.
- 3) A total of 2 arrival and 5 departure flights were unable to deplane passengers for some time due to the need to ensure the safety of passengers and ground staff under severe weather conditions on the airfield.

Because of the severe cross winds, only 6 departures were possible from 1900hrs on Friday 6 July to 0300hrs on Saturday 7 July. These were made between 2000hrs and 2100hrs due to a temporary improvement in conditions. Throughout this period and the night, forecast for the airport was for wind speeds of 56 km/h (30 knots) or more, with squally showers and heavy rain. It is believed that pilots of ready-to-go aircraft were waiting for an opportunity of winds easing off temporarily so as to depart immediately. It is not uncommon for such 'windows' of lighter winds to occur in between rain cells from past experience as the winds were associated with the heavy rain. Indeed, winds did decrease temporarily between 2000 and 2030 hrs allowing some flights to depart. There were also wind decreases at other times. However, the extent of the speed decrease and the duration were not sufficient to allow other flights to do so. Turbulence, windshear and microbursts were also detected during the period. Between 2030 and 2100 hrs those ready-to-go aircraft deplaned passengers into the terminal building with a request for passengers to report back each hour. The inclement weather did not improve significantly before daybreak.

As the 48 aerobridge-served stands were fully occupied, arrival aircraft were parked at the remote stands. Due to the strong wind conditions, it was not safe for arrival aircraft to deplane their passengers at the remote stands. They had to wait for the first available aerobridge-served stands to begin deplaning their passengers safely.

- 4) At the peak, there were 112 aircraft parked at HKIA. All aircraft were allocated permanent or remote positions. Only one aircraft was temporarily accommodate on a taxilane for 6 hours. No aircraft was parked on a taxiway. AA has developed procedures which will allow for parking of 138 aircraft without affecting operations.
- 5) As regards the improvement initiatives identified, please see paragraphs 14-16 of the Panel paper.