

## 公務出國報告提要

頁數：112 含附件：是

報告名稱：香港鄰區航管業務協調

主辦機關：交通部民用航空局

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出國人員：崔曉梅/交通部民航局飛航服務總台/台北區管中心/協調員

出國類別：其他

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關鍵詞：ICAO（INTERNATIONAL CIVIL AVIATION ORGANIZATION）

國際民航組織

RVSM（REDUCED VERTICAL SEPARATION MINIMUM）

縮減垂直隔離

NEAT（NORTH EAST ASIA TRAFFIC MANAGEMENT FORUM）

東北亞飛航管理會議

內容摘要： 本次職奉派至香港航管中心參訪之主要內容為：

（一）有關我國與香港工作協議書相關實際內容之協調與修訂。

（二）有關近年來香港因各種因素，對我方實施流量管制，台北亦已

成立流量管制機制小組，希望借此機會實地瞭解香港實施流量管制

之因素及方式: 1. 如何決定流管時機

2. 實施對外流管時, 區內仍正常作業?(不另外分區?)

3. 對台北飛航情報區實施流管時, 與鄰區:南中國海, MANILA 之相關關係 (對鄰區也實施流管嗎?)

(三) 有關香港航管中心於今年十一月即將實施 KAPLI RVSM 之因應及配合方式.

(四) 當不正常情況發生時, 包括航機發生意外事故(Incident & Accident)、劫機、機上爆炸物、航機不正常狀況、無線電或助航裝備嚴重受損……等事項的通報程序之資料搜集.

本文電子檔已上傳至出國報告資訊網

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## 壹、目的

自九〇年代，國際民航組織空中航行委員會(AIR NAVIGATION COMMITTEE) 同意 FL290 至 FL410 間實施垂直縮減隔離 (RVSM-- REDUCED VERTICAL SEPARATION MINIMUM) ，由原來的 2000 呎隔離縮減到 1000 呎. 首先北大西 (NAT) 於 1997 年開始實施縮減垂直隔離作業，而亞太地區 (ASIA/PACIFIC) 及西大西洋 (WATER) 航路系統於 2000 年開始實施，接著國際民航組織 (ICAO: INTERNATIONAL CIVIL AVATION ORGANIZATION) 於 2002 年將南中國海航路重新規範劃分後，於同年 2 月 21 日開始實施縮減垂直隔離，有效運用空域以解決因全球航空事業逐年持續成長而使天空顯得忙碌擁擠致使空中航行危險增加. 我國並非國際民航組織之會員國，但為善盡國際社會成員的責任與義務，配合國際民航情勢之發展，我們當然不能置身事外，故我國民航局於 2002 年配合南中國海之重整，將 R471 航路與 B591 航路之部分航路調整為 N892 航路與 B348 航路，實施第一階段縮減垂直隔離 (恆春西南面航路實施小規模的縮減垂直隔離). 第二階段於 2003 年開始實施，將台北飛航情報區全區實施縮減垂直隔離，2005 年 9 月 29 日起，台北飛航情報區實施第三階段縮減垂直隔離，即本區與日本、韓國間全面依據國際民航組織之 SINGLE ALTERNATE 規定做為南來北往航機之使用高度，使台北飛航情報區與東北鄰區日本飛航情報區之間多了 6 個雙千呎高度 (FL300、FL320、FL340、FL340、FL380、FL400)，因此管制容量增加，管制作業更加便利而有彈性，航機也因此節省能源.

近年來香港因各種因素，針對我方實施流量管制，而流量管制之實施方式與內容因人而異，造成我方航管作業流程極大之困擾，而自 2005 年 11 月的 國際飛航管制員協會聯盟東北亞飛航管理會議 (NEAT: North East Asia Traffic Management Forum) 後，台北飛航情報區亦成立流量管制機制小組，希望能為台北天空日益成長的航行量制訂出來一個安全、有序的流量管制方法來確保掌握航機安全及充分運用空域. 故藉此參訪能瞭解香港流量管制的前因及程序，能提供為本區的流量管制小組做為參考.

最後為參訪香港管制中心各作業單位，蒐集有關航機發生意外事故 (Incident & Accident)、劫機、機上爆炸物、航機不正常狀況、無線電或助航裝備嚴重受損……等事項的通報程序資料.

## 貳、人員與行程

### 一、人員：

本次赴香港區域管制中心協商航管作業及參訪航管作業單位人員為飛航服務總台台北區域管制中心協調員崔曉梅一員。

### 二、行程：

#### (一) 第一日 96/08/20：

由桃園國際機場搭乘中午 12 點 40 分長榮航空公司 BR869 班機 (B744) 啓程前往香港，於下午 2 點 20 分抵達香港赤臘角機場 (CLK AIRPORT)，隨即轉搭機場捷運電車至香港，再轉搭機場捷運公司提供之接駁巴士前往下榻飯店：香港金域假日飯店(Holiday Inn)；晚間以電話聯絡此次參訪香港方面的聯絡人：汪達明先生 (Mr. Ben T.M. Wang，現任香港民航處航空交通服務督導主任 (Air Traffic Services Supervisor)，確認後續兩天行程與交通接駁細節，並約定明日見面時間、地點。

#### (二) 第二日 96/08/21：

上午 7 點 45 分由飯店附近捷運站尖沙嘴搭乘筲灣線到荔景，轉搭東涌線到青衣站，再轉搭機場快線到達赤臘角機場(歷時 45 分鐘)，再依與汪達明先生之約到機場 D 區工作人員入口處與汪先生碰面，經過機場航站保安站檢查後再進入機場操作區，再搭乘香港民航處安排的機場交通車前往香港民航處航空交通管制大樓 (Air Traffic Control Complex-- 為一包含飛航管制、航空氣象、機場機坪管理等作業之綜合性大樓) 於大樓一樓保安站核對證件資料，另配發准許通行的紅色臨時通行證，經過如此一路繁瑣的檢查手續，至此始得以開始進行香港參訪之旅，內心十分佩服港方重視保安的態度與貫徹落實安全查驗的作法，值得我們效法與學習。上午 Mr. Ben 先簡略的介紹香港民航處之組織—民航處首長為民航處處長，副首長為副處長，處長和副處長管轄七個部

門：1.機場安全標準部 2.航空交通管理部 3.航班事務部 4.飛行標準及適航部 5.工程及系統部 6.行政部 7.財務

下午之參訪議題為 RVSM 及流量管制，與汪達明先生，針對台港間相關問題進行會商，其間充分溝通討論且氣氛融洽，並獲得共識與因應對策。

(三) 第三日 96/08/22：

上午 8 點整依昨日搭車路線至香港赤臘角機場，於 9 點鐘抵達機場出境大廳，與汪達明先生會合後，再換搭接駁交通車前往航管大樓，經汪達明先生帶領進入大樓，上午安排參訪航空交通管理部管轄下之區管中心、近場台及香港國際機場塔台等飛航管制單位。

下午與汪達明先生討論當不正常情況發生時，包括航機發生意外

(Incident & Accident)、劫機、機上爆炸物、航機不正常狀況、無線電或助航裝備嚴重受損……等事項的通報程序及蒐集部分資料帶回以供參考。

下午四點搭乘接駁交通車至機場出境大廳，搭乘機場捷運電車至香港，再轉搭接駁巴士回假日金域飯店，結束第二天的參訪活動。

(四) 第四日 96/08/23：

於飯店整理蒐集所得之資料。

(五) 第五日 96/08/24：

搭乘下午三點三十分長榮航空公司 BR870/A330 班機返國，於晚間五點十五分抵達桃園國際機場，完成此行赴香港協商航管作業及參訪行程。

## 參、過程與協議

### 一、流量管制部份：

香港與我國現行之協議書，雙方均認為並無修改之必要，所以僅就最近的流量管制做進一步的協商。

- (一) 香港對台北實施流量管制已有一段時間，從最初的不分過境或起飛或不同機場起飛，一律合併計算，到過境與起飛分開計算（桃園國際機場與高雄小港機場合併計算），到現在的過境、桃園機場、高雄小港機場分開計算，歷經了香港與區管中心無數次的會議與 e-mail 往來，才達到了現在適切的作法，雙方同意現行流量管制原則仍就不變一亦即 a. 任何有關流量管制之協調作業均需由雙方班務督導為協調窗口 b. 過境與由台北飛航情報區不同機場起飛之班機，其流管時機不合併計算，給予管制員合理之工作量及不影響 NAHA 之管制工作。
- (二) 近年台北飛航服務總台亦成立流量管制機制小組，期待能為台北日益繁忙的天空，工作負荷量越來越重的管制員能訂定出來一個安全、有序的工作程序。香港流量管制有一特定席位及系統設備，前幾年已有同仁特別介紹其系統設備，此次參訪著重在流量管制內容的決定因素及基礎。
- (三) 為因應桃園國際機場自 2007 年 9 月 15 日關閉 05/23 跑道直到 2007 年 10 月 5 日而實施對香港流量管制一到桃園落地之航機，不論起飛機場，一律 3 分鐘一架。Mr. Ben 認為較難實施，經其內部討論結果，希望台北能同意不同機場起飛航機分開計算，即香港機場離場航機自隔 6 分鐘，澳門機場自隔 6 分鐘，但由於此一流量管制乃經由 NOTAM 發出，跑道的關閉茲事體大，為了充分利用一條跑道，給予落地與起飛航機安全的隔離，不僅僅對香港，對那霸 (NAHA) 管制中心也做了流量管制措施，但若香港真的認為在實行上有困難的話，可以個案經由協調，達成雙方都同意且滿意的流量管制時間，但這必須每天經由督導協調 (case by case)，並無法經由一次的協議就可以完全的取代 NOTAM 的條文。

### 二、KAPLI RVSM 進展

G86 航路 (進管點 KAPLI) 一直未實施縮減垂隔離 (RVSM)，日益增加的航行量，只有三個高度可以使用 (FL310，FL350，FL390)，雖然香港已經將 KAPLI

出管的隔離在有條件下可以縮短為 40 哩，但仍舊無法解決高度不敷使用的窘境。自 2006 年 4 月底於泰國曼谷召開之 ICAO 亞太會議中，香港告知其與泰國將與 ICAO 溝通，將 G86 航路改用南下雙仔呖，現在終於得到香港方面的好消息，香港航空交通服務部安全管理室主任范偉全先生 (Mr. Lucius Fan) 提出初步空層安排：

HONG KONG FIR → TAIPEI FIR

FL270, FL290, FL330, FL370, FL390, FL410, FL450 (無 FL310 FL350)

TAIPEI FIR → HONG KONG FIR

FL280, FL300, FL340, FL380, FL400, FL430 (無 FL320 FL360)

上列空層不包含 FL310, FL350(HK->TP), FL320, FL360(TP->HK) 乃因應三亞飛航情報區 DAGON/A1 及 IKELA/P901 之飛航安全要求，但 Mr. Ban 希望台北能接受香港方面交管 FL310 及 FL350，因為不管三亞方面有什麼限制，但並不存在於台北與香港之間。這項議題在 8 月初經過區管中心的學術小組開會得到初步的同意，但最後的決議仍必須等待香港與三亞的協議決定，香港與台北之間的高度才能最後抵定。

### 三、重大事件通報程序

按交通部重大事故分類，屬於航空業的重大事故有空難、劫機或破壞、天然或人為災害。各類別又分為甲級災害規模、乙級災害規模、丙級災害規模。各級事故發生後有個別不同處理方式及通報程序。以航空業重大事故緊急通報程序較重要的有 1. 航空器失事或意外事件 2. 劫機、裝載爆炸物品或破壞事件 之通報程序 (如附件一)

香港緊急事件程序手冊編寫了厚厚的兩大本，共分 20 章節：

1. Introduction
2. Aircraft Accident
3. Aircraft Full Emergency
4. Aircraft Ground Incident



5. Local Standby
6. Weather Warnings
7. Major Traffic Disruptions at the Airport
8. Maps and Charts
9. Additional Information
10. TELS Emergency Procedures
11. Content of Part 2
12. Bomb Threat
13. Unlawful Seizure of Aircraft
14. Search and Rescue
15. Fire in ATC Complex or Control Tower
16. Activation of Back-up Air Traffic Control Centre and Control Tower
17. Chemical, Biological, Radiological and Nuclear Incidents.
18. Major Security Incident at Airport
19. Reporting Any Abnormal Occurrence at the Airport
20. Contingency Measures for Public Health Incidents

由於內容多，因此只請汪達明先生提供較具共通性的章節以為存查  
參考—Chapter 2 Aircraft accident and aircraft recovery

Chapter 3 Aircraft full emergency

Chapter 12 Bomb threat

Chapter 14 Search and rescue

Chapter 15 Fire and evacuation of atc complex or  
control tower

(附件二)

#### 肆、心得與建議：

嚴密的機場保安措施、便捷的機場交通網，乃至於香港管制中心的管制環境、裝備，管制員的工作量、專業精神、敬業態度及福利等，都令人印象深刻，也難怪香港航管服務素質及專業世界有名。現僅就這次參訪討論議題所產生之心得及建議簡述於下：

##### 一、流量管制

香港的流量管制行之有年，分爲澳門流管及落地香港流管。雖然到目前爲止制度型態已然成型，但仍帶給台北管制員不小的負荷，此次參訪特別詢問了一些問題並得到了解答：

- (一) 澳門流管已經是例行公式：澳門機場只有一條跑道，而在航情量大增的情況下，只有每天實施流量管制(0200Z-0400Z)。
- (二) 香港流管：香港雖然擁有一套專門的流量管制系統及席位，但後來發現效果不彰，原因在於系統無法取得足夠且正確的資料來計算未來數小時的流量以作爲流量管制的數據，例如當要系統估算未來一小時的流量(含進管及離、到場航機數量)系統可以很精確的估算數量，但當要系統計算三小時以上時，其誤差率會偏高，而當估算時間愈長時，誤差率也愈大(無法精確估算尚未起飛航機的延誤起飛，或長程航機正確的起飛時間，因爲在系統內的時間數值皆是預計時間，系統並無法知道航機是否會準時離場，故其計算的時間值都是以預計時間來估算未來的航機流量，而並不是確實的時間值)，因此香港管制中心只有依據經驗判斷來實施流量管制，亦即香港天氣一旦不好，即實施流量管制，而流量管制的內容(時間間隔)則因人而異。
- (三) 對鄰區流管：香港 85%的航情量是來自台北，因此只對台北實施流量管

制，對其他鄰區並不實施流量管制。

流量管制淺層面看來是對飛機的限制，但實則是對飛安的落實，不是在減少飛機的數目，而是讓飛機能在規劃好的空域空間循序漸進，更能讓管制員有充分的時間及精力提供更好的服務，試想，當管制員全身緊繃，心中充塞了要忙著解決潛在危機和隔離不足的危險時，誰還有心思去想要提供多麼好的服務呢？

## 二、KAPLI 實施 RVSM

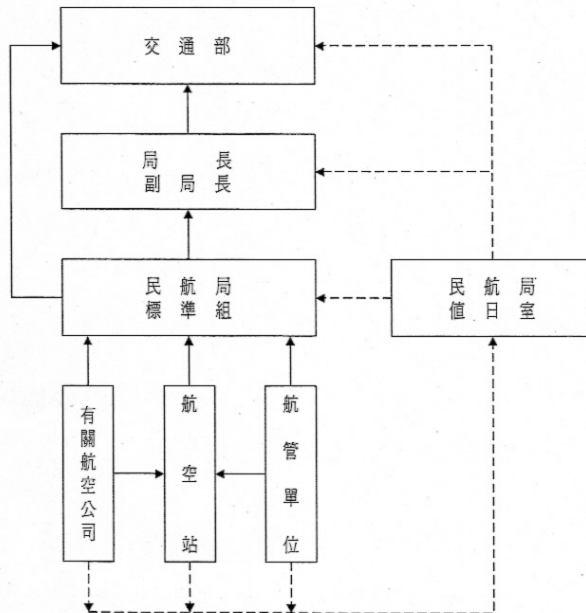
這實在是對管制員的一個很好的消息，當三亞飛航情報區不實施 RVSM，香港馬上警覺到若他們實施 RVSM，會使得香港區域變成一個高度轉換區，這期間不僅增加管制員的高度安排工作量，更因部分 RVSM 的高度與傳統高度產生不同方向但相同高度的危險，這更增加管制員非習慣性及例行性的管制工作。因此在香港方面於 KAPLI 出管點不實施 RVSM 時，上項的工作及潛在危機則由台北飛航情報區承接，香港多方面替管制員設想周到的政策，讓管制員能從容不迫提供優良的管制服務，贏得至高名聲，而現在 KAPLI 出管也即將實施 RVSM，對台北飛航情報區來講是一個好消息，除了降低管制員安排高度、轉換高度的壓力及潛在危險，也因為多了空層讓駕駛員選擇，服務品質也因此會相對提高。

### 5.2 民用航空局重大事故緊急通報程序

#### 民用航空局重大事故緊急通報程序

附件一 (大馬80.1.18秘發字第00690號函)  
七十四年五月二十一日秘(74)字第0三四0七號函發佈  
七十八年八月二十五日秘(78)字第七三七八號函修正

#### 一、航空器失事或意外事件



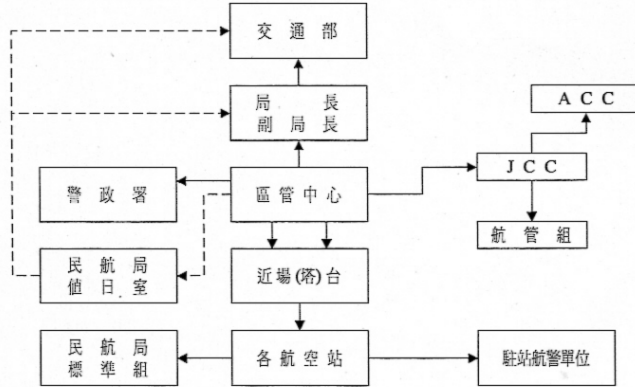
注意  
事項

- 一、無法向本局業務主管單位通報時應向民航局值日室通報。
- 二、—— 為正常上班時間通報線。
- 三、- - - - 為非上班時間通報線。
- 三、甲、乙級狀況發生時，有關單位主管並應直接向局長、副局長報告。

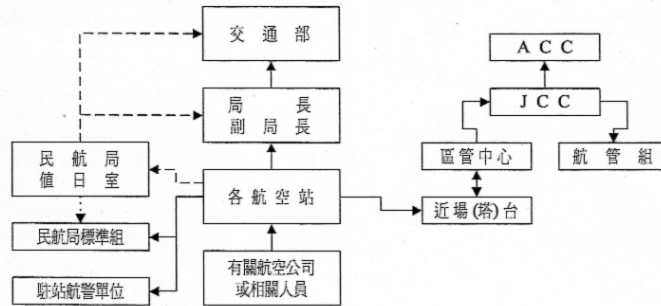
附件二  
七十四年五月二十一日秘(74)字第0三四0七號函發佈  
七十八年八月二十五日秘(78)字第七三八七號函修正

二、劫機、裝載爆炸物品或破壞事件

資料來源（空中報告）：



資料來源（地面報告）：



- 注意事項
- 一、無法向本局業務主管單位通報時應向民航局值日室通報。
  - 二、—— 為正常上班時間通報線。  
----- 為非上班時間通報線。
  - 三、甲、乙級狀況發生時，有關單位主管並應直接向局長、副局長報告。



**CHAPTER 2****AIRCRAFT ACCIDENT AND AIRCRAFT RECOVERY****CONTENT**

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## AIRCRAFT ACCIDENT AND AIRCRAFT RECOVERY

### 1 Introduction

- 1.1 An aircraft accident is an occurrence during the operation of an aircraft in which the aircraft receives substantial damage or in which any person involved suffer death or serious injury. It does not include natural death or isolated events of injury of passenger on board the aircraft.

### 2 ATCO Actions

- 2.1 In the event of a crash on or in the immediate vicinity of the Airport, the appropriate controller will operate the crash alarm and transmit the alerting message, any necessary instructions and clearance to proceed to Rescue Leader, Airport Fire Contingent, on TMR-AFC (primary) or 121.9 MHz (secondary).
- 2.2 Ensure that TMR-AFC or 121.9 MHz is isolated from other ATC frequencies whenever the channel is used in an aircraft emergency operation. If possible, staff should operate from a spare control position, use the separate TMR-AFC communication panel or ICOM VHF transceiver.
- 2.3 ATC telephone communication with AFC shall be directed to RESCUE CONTROL located at the Sub-Fire Station (AFC\_SUB, SPE page 1). Rescue Control shall be responsible for message dissemination and tasking within AFC.

### 3 ASU Actions

- 3.1 ASU should note that there may be the need to specifically designate an officer to act as a communication operator for AFC TMR / 121.9 MHz in cases where prolonged use of the frequency is anticipated. The task may be carried out in either of the TCO workstations or at the ASU position as appropriate.
- 3.2 After alerting the Airport Fire Contingent, other alerting procedures are to be carried out without delay, in particular ensuring that the following have been informed:
- a) Apron Control Centre
  - b) Airport Police Control Room
  - c) Hospital Authority – QEH operator
  - d) Maritime Rescue Co-ordination Centre (only if crash at sea)



- 3.3 Circumstances may require that certain of these alerting messages be made by an Air Traffic Flight Services Officer or other available personnel, but it must be explicitly understood that responsibility remains that of the ASU.
- 3.4 The ASU is responsible for ensuring that all alerting actions in accordance with the alerting list specified on pages 2-11 to 2-13 have been carried out and that immediate action has been taken to safeguard airborne aircraft.

#### **4 WMR Actions**

- 4.1 The WMR is responsible for ensuring that all alerting actions in accordance with the alerting list specified on pages 2-14 and 2-15 have been carried out.
- 4.2 A guidance checklist for WMR/ASU is provided on page 2-4.

#### **5 Other Actions**

- 5.1 ATMD will dispatch liaison officers to the scene of the accident and the Airport Emergency Centre for accident occurring within the airport boundary.
- 5.2 Multifax facility is employed to expedite the dispatch of alert messages via facsimile. The alertee fax numbers have been grouped under the Multifax List No. 201. The Multifax Password needs to be mentioned for every multifax transmission. (See detailed operation of the Multifax on page 9-7)
- 5.3 If an aircraft accident occurred outside the airport area as defined by the sea rescue zone, immediately after the crash ASU should obtain a list of the passengers and crew members on board the crashed plane and fax it to the following parties :
- |  |                 |
|--|-----------------|
| a) Emergency Monitoring and Support Centre | Fax : 2840 0567 |
| b) Fire Services Communication Centre      | Fax : 2311 0066 |
| c) Police HQ Communications Centre         | Fax : 2529 0191 |
| d) Immigration Department                  | Fax : 2754 7876 |
| e) Queen Elizabeth Hospital                | Fax : 2958 8975 |

This list will be for internal use only. Any enquiries concerning casualties must be referred to the Casualty Enquiry Unit of the Police.

INTENTIONALLY

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**6 Check List for WMR/ASU**

Item	Remarks
Alert action	
Addition information from operator	
Follow-up actions for major air traffic disruption (runway closure and reopening)	IASC/NOTAM/ATIS/ Message to All Airlines (VHZZAAXX)
Liaising with other key agents	MCU/AEC
Record/Documentation	Controller's or witness' Reports / Impound Recorder Tapes / Flight Strips
NAVAID Status	Withdrawal/check serviceability
Notification of Accident	AFTN (see page 2-21 )

7 **Transport Emergency**  
**MM 2**  
**Cover Sheet**

**To: Fax Support** (Fax : 2837 7200)

Please Multifax the attached message to my pre-registered list.

Company Name : Civil Aviation Department

Password : 240515 Multifax List No: 201

Contact Person : Aerodrome Supervisor

Registered Fax No : 2910 0168 Contact Tel No: 2910 6822

Total number of pages : Cover Sheet + [1]

Remarks : Emergency, please deliver my Multifax message immediately.

Signature \_\_\_\_\_ Date \_\_\_\_\_

Please fax this cover sheet together with your message to 2837 7200. We will fax back a message reference number to you in a few minutes.

You can photocopy this sheet for future use.

If you have any queries, please call Customer Services Executive on 2888 2242.

*Please note: Under the general conditions of service, customers shall not use the service for any illegal or improper purpose or for the purpose of sending unsolicited advertising messages.*

ATMD  
CAD

(20 February 2006)

Alert message No. 1 from Air Traffic Control Tower

Prepared at (Local Time) \_\_\_\_\_ (Date) \_\_\_\_\_

**AIRCRAFT ACCIDENT**

- Accident Occurrence Time \_\_\_\_\_
- Nature of Accident \_\_\_\_\_  
\_\_\_\_\_
- Flight Identification \_\_\_\_\_  
(Flight Number or Aircraft Registration)
- Airline Company \_\_\_\_\_
- Aircraft Type \_\_\_\_\_
- Accident Position
  - AAHK Airport Grid Map \_\_\_\_\_
  - MARPOLOC Grid \_\_\_\_\_
  - Latitude and Longitude \_\_\_\_\_
- Location \_\_\_\_\_  
near \_\_\_\_\_
- Total Persons on Board \_\_\_\_\_  TBN
- Dangerous Goods on Board  No  TBN
  - Yes Location \_\_\_\_\_
  - Type/UN ID Code \_\_\_\_\_
  - Quantity \_\_\_\_\_
- Other information \_\_\_\_\_

Completed by \_\_\_\_\_  
( TFC )

Checked by \_\_\_\_\_  
( ASU )

*Please ring 2910 6822 if message received is incomplete*

ATMD  
CAD

(1 July 2006)

(Aircraft Accident)

8

**Transport Emergency**

**MM 2**

**Cover Sheet**

**To: Fax Support** (Fax : 2837 7200)

Please Multifax the attached message to my pre-registered list.

Company Name : Civil Aviation Department

Password : 240515

Multifax List No: 201

Contact Person : Aerodrome Supervisor

Registered Fax No : 2910 0168

Contact Tel No: 2910 6822

Total number of pages : Cover Sheet + [1]

Remarks : Emergency, please deliver my Multifax message immediately.

Signature \_\_\_\_\_

Date \_\_\_\_\_

Please fax this cover sheet together with your message to 2837 7200. We will fax back a message reference number to you in a few minutes.

You can photocopy this sheet for future use.

If you have any queries, please call Customer Services Executive on 2888 2242.

*Please note: Under the general conditions of service, customers shall not use the service for any illegal or improper purpose or for the purpose of sending unsolicited advertising messages.*

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(20 February 2006)

Alert message No. \_\_\_\_\_ from Air Traffic Control Tower  
Prepared at (Local Time) \_\_\_\_\_ (Date) \_\_\_\_\_  
to supplement previous notification on \_\_\_\_\_

**AIRCRAFT ACCIDENT**

\_\_\_\_\_ (Flight Identification)

Revised Accident Position \_\_\_\_\_

AAHK Airport Grid Map \_\_\_\_\_

MARPOLOC Grid \_\_\_\_\_

Latitude and Longitude \_\_\_\_\_

Revised Location (near) \_\_\_\_\_

Total Persons on Board \_\_\_\_\_

Dangerous Goods on Board  NO

YES Location \_\_\_\_\_

Type/UN ID Code \_\_\_\_\_

Quantity \_\_\_\_\_

Any other information \_\_\_\_\_

Completed by

Checked by

( \_\_\_\_\_ )  
TFC

( \_\_\_\_\_ )  
ASU

*Please ring 2910 6822 if message received is incomplete*

ATMD CAD

(16 February 2007)

9

**Transport Emergency  
MM 2  
Cover Sheet**

**To: Fax Support** (Fax : 2837 7200)

Please Multifax the attached message to my pre-registered list.

Company Name : Civil Aviation Department

Password : 240515

Multifax List No: 201

Contact Person : Aerodrome Supervisor

Registered Fax No : 2910 0168

Contact Tel No: 2910 6822

Total number of pages : Cover Sheet + [1]

Remarks : Emergency, please deliver my Multifax message immediately.

Signature \_\_\_\_\_ Date \_\_\_\_\_

Please fax this cover sheet together with your message to 2837 7200. We will fax back a message reference number to you in a few minutes.

You can photocopy this sheet for future use.

If you have any queries, please call Customer Services Executive on 2888 2242.

*Please note: Under the general conditions of service, customers shall not use the service for any illegal or improper purpose or for the purpose of sending unsolicited advertising messages.*

ATMD  
CAD

(20 February 2006)




10

STAND DOWN FORM

**This is a Stand Down Notification**  
**from Air Traffic Control Tower**  
**concerning the Incident on** \_\_\_\_\_  
(Aircraft Identification)

The incident has been stood down at \_\_\_\_\_

Thank you very much for your kind assistance.



Date \_\_\_\_\_ Message prepared at \_\_\_\_\_  
(Local time)

Completed by

( \_\_\_\_\_ )  
TFC

Checked by

( \_\_\_\_\_ )  
ASU/WMR

*Please ring 2910 6822 if message received is incomplete*

ATMD  
CAD

(20 February 2006)

**11 AERODROME SUPERVISOR (ASU)**  
**AIRCRAFT ACCIDENT ALERTING LIST**

Name	Telephone No.	Alerted (Local Time)	Additional Information	Stand Down Notified at
<b>WMR</b>	SPE Direct Line or 2910 6821			
<b>C(OS)</b>	2910 6432 or see Current Post Holder List <i>If no reply contact ADG(ATM) 2910 6402</i>			

Actioned by ASU :

Signature : \_\_\_\_\_

Name : \_\_\_\_\_

Date : \_\_\_\_\_

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CAD

(20 February 2006)

**12 TOWER FSO COMMUNICATION (TFC)**  
**AIRCRAFT ACCIDENT ALERTING LIST**

Name	Telephone No.	Alerted (Local Time)	Additional Information	Stand Down Notified at
<b>WMR</b>	Fax Alerting Message and Additional Alert Message 2910 1178			
<b>Airport Fire Contingent Rescue Control</b>	SPE Direct Line or 2183 6262			
<b>Airport Police Control Room</b>	SPE Direct Line or 2769 4801 2106 7020			
<b>Marine Rescue Coordination Centre</b>	<i>Only if crash is at sea</i> SPE Direct Line or 2233 7996			

Actioned by TFC :

Signature : \_\_\_\_\_

Name : \_\_\_\_\_

Date : \_\_\_\_\_

ATMD  
CAD

(12 April 2006)

**13 TOWER FSO PLANNING (TFP)**  
**AIRCRAFT ACCIDENT ALERTING LIST**

Name	Telephone No.	Alerted (Local Time)	Additional Information	Stand Down Notified at
<b>AAHK Apron Control Centre</b>	SPE Direct Line or 2910 1108			
<b>Queen Elizabeth Hospital</b>	SPE Direct Line or 2958 8888			
<b>Aircraft Operator</b>	See Front Insert Operators Contact List <b>Also obtain POB and DG information</b>			

Actioned by TFP :

Signature : \_\_\_\_\_

Name : \_\_\_\_\_

Date : \_\_\_\_\_

**14 WATCH MANAGER (WMR)****AIRCRAFT ACCIDENT ALERTING LIST**

14.1 Inform FSS of Alerting Message

14.2.

Name	Telephone No.	Alerted (Local Time)	Additional Information	Stand Down Notified at
<b>ADG(FS)</b>	2769 8896 or see Current Post Holder List <i>If no reply contact C,AS 2769 7508</i>			
<b>SOO(T)</b>	2910 6446 or see Current Post Holder List <i>If no reply contact C(TD) 2910 6434</i>			

Actioned by WMR :

Signature : \_\_\_\_\_

Name : \_\_\_\_\_

Date : \_\_\_\_\_

**15 FLIGHT SERVICE SUPERVISOR (FSS)**  
**AIRCRAFT ACCIDENT ALERTING LIST**

Name	Telephone No.	Alerted (Local Time)	Additional Information Passed at	Stand Down Notified at
<b>Fire Services Communications Centre</b>	SPE Direct Line or 2733 7772			
<b>GFS</b>	SPE Direct Line or 2305 8301			
<b>Aeronautical Com Supervisor ACS(ANC)</b>	SPE Direct Line or 2910 6222			
<b>HKO</b>	2910 6920			

Actioned by FSS :

Signature : \_\_\_\_\_

Name : \_\_\_\_\_

Date : \_\_\_\_\_

**AIRCRAFT ACCIDENT ALERTING FLOW CHART**

16

Duty Staff	Initial Alerting	Primary Alerting	Downstream Alerting
ASU	WMR ↓	ADG(FS) or C,AS	C,F,S C,AS
		SOO(T) or C(TD)	ADG(AFS) or CSO(A)
			C(TD)
			C(TE) Security Branch
	FSS	Fire Services Comm Centre	
		GFS	
		ACS(ANC) HKO	C(O&M) ADG(E&S)
	C(OS) or ADG(ATM)	ADG(ATM) PRO	DGCA
			DDGCA
TFC	Airport Fire Contingent		
	Airport Police		
	MRCC (only if location is in sea)		
TFP	AAHK ACC	AAHK EPM Alerting Procedures	
	Queen Elizabeth Hospital		
	Aircraft Operator		

**17 (Reserved)**

Pages 2 –17 to 2 – 20 inclusive have been reserved.



## 18 Notification of Accident

### 18.1 Initial Notification

- 18.1.1 The initial notification of the accident shall be sent with minimum delay by AFTN to :
- (a) The State of Registry of the aircraft.
  - (b) The State of Manufacture of the aircraft. (see ICAO Doc 8643)
  - (c) The State of the Operator of the aircraft (this is sent only if different from the State of Registry and/or State of Manufacture of the aircraft). (see ICAO Doc 8585)
- 18.1.2 The initial notification message will be sent by the ATS Watch Manager or Aerodrome Control Supervisor after consultation with DGCA or DDGCA or ADG(FS) provided there is no undue delay in contacting these officers. The message will include as much of the information contained in para 18.1.4 as is readily available, but its dispatch shall not be delayed due to the lack of information.
- 18.1.3 As soon as it is possible to do so, details omitted from the initial notification message and any other known relevant information shall be dispatched to the original addressees by AFTN.
- 18.1.4 The initial notification shall include the following information :
- (a) the identifying abbreviation ACCID;
  - (b) type, model, nationality and registration marks of the aircraft;
  - (c) name of owner, operator and hirer, if any, of the aircraft;
  - (d) name of pilot-in-command;
  - (e) date and time (UTC) of the accident;
  - (f) last point of departure and point of intended landing of the aircraft;
  - (g) position of the aircraft with reference to some easily defined geographical point and latitude and longitude;

- (h) number of crew and passengers : aboard, killed and seriously injured;  
others : killed and seriously injured;
- (i) nature of the accident and the extent of damage to the aircraft so far as is known;
- (j) an indication to what extent the inquiry will be conducted or is proposed to be delegated by the State of Occurrence (request for participation of the State of Manufacture if necessary);
- (k) physical characteristics of the accident area;
- (l) identification of the originating authority.

Note 1

The 4-letter designator "YLYX" in association with an ICAO 4-letter Location Indicator forms the 8-letter Addressee Indicator for messages sent over the AFTN to authorities responsible for aircraft accident investigations. For messages sent over the public telecommunication service the Addressee Indicator cannot be used and a postal or telegraphic address must be substituted.

Note 2

The 8-letter Addressee Indicators and the corresponding postal and telegraphic addressees, when notified to ICAO, are published in the ICAO Designators for Aircraft Operating Agencies Aeronautical Authorities and Services (Doc 8585).

**18.2 Subsequent Notification**

- 18.2.1 The subsequent notification of an aircraft accident shall be sent as soon as the information is available and within 30 days of the accident. It may be sent by airmail.

**18.3 Notification of Accidents when Airworthiness or matters of exceptional interest in the promotion of aviation safety are involved.**

18.3.1 In this instance notification of the accident and relevant known information shall be despatched by the quickest means available to :

- (a) State of Registry of the aircraft.
- (b) State of the Operator of the aircraft (this is sent only if different from the State of Registry and/or State of Manufacture of the aircraft.)
- (c) State of Design of the aircraft.
- (d) State of Manufacture of the aircraft.
- (e) ICAO, via PRC ICAO Rep. (by fax: 0021-514-954-8319), if the a/c has a max weight exceeding 2250Kg.
- (f) CAAC Air Safety Office
- (g) Any contracting State from which relevant information or assistance may be required.

**18.4 Notification Form**

INITIAL NOTIFICATION MESSAGE (BY AFTN)	
Headings of Standard Content of Message (Not for Transmission)	Content of Compiled Message for Transmission
Priority : .....	DD
Addressees :  State of Registry .....	_____
State of the Operator .....	_____
State of Design .....	_____
State of Manufacture .....	_____
(ii) CAAC Air Safety Office.....	ZBBBYAYX
(iii) Any other state from which relevant information or assistance may be required .....	_____
Time of Origin of Message (UTC) .....	_____
Originator .....	VHHHYLYX
(a) Identification code .....	(a) ACCID
(b) Type, model, nationality and registration marks of the aircraft .....	(b) _____ _____ _____

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(20 February 2006)

(c) name of owner, operator and hirer, if any, of the aircraft	(c) _____ _____ _____
(d) name of the pilot-in-command	(d) _____ _____
(e) date and time (UTC) of the accident	(e) _____ _____
(f) last point of departure and point of intended landing of the aircraft	(f) _____ _____ _____
(g) position of the aircraft with reference to some easily defined geographical point and latitude and longitude	(g) _____ _____ _____ _____
(h) number of crew and passengers : aboard, killed and seriously injured; others : killed and seriously injured	(h) _____ _____ _____ _____

<p>(i) nature of the accident and the extent of damage to the aircraft as far as is known</p>	<p>(i) _____                  _____                  _____</p>
<p>(j) an indication to what extent the inquiry will be conducted or is proposed to be delegated by the State of Occurrence (Request for participation of the State of Manufacture if necessary)</p>	<p>(j) _____                  _____                  _____                  _____                  _____                  _____                  _____</p>
<p>(k) physical characteristics of the accident area</p>	<p>(k) _____                  _____                  _____</p>
<p>(l) identification of the originating authority</p>	<p>(l) _____                  _____                  _____</p>

## 19 POB and Nationalities in a Landing Accident

- 19.1 Experience has shown that confusion has often arisen in respect of the correctness of the POB. Such confusion could well stem from the flight's manifest, available to the airline concerned or its handling agent at Hong Kong, which may contain outdated information consequent upon, for example, last-minute no-show or add-on passengers. For similar reasons, the POB inserted on the SPL portion of the flight plan filed at the departure aerodrome may also be equally incorrect.
- 19.2 While the POB provided by the local handling agent must of necessity be used as a starting point for rescue operation, the updated POB is best obtained from the departure aerodrome. The Hong Kong SAR Government is also concerned about the nationalities of the POB because protocol necessitates the Political Adviser writing to the Consulates concerned. In this connection, such information is also to be sought from the departure aerodrome.
- 19.3 Therefore for the purpose of para 19.2 above, instead of sending an RQS, an SS AFTN message along the following form of words should be dispatched to the departure aerodrome and ACC

"SS Aerodrome, ACC  
VHHKZQZX

ATTN : ATC Supervisor

Landing accident, (c/s), (aircraft type)

Request you obtain from the appropriate authorities information on :

- (A) updated, repeat updated, POB; and
- (B) their names and nationalities.

Please rush reply to (A) with top priority."

## 20 Aircraft Recovery

20.1 Following the completion of the Aircraft Accident phase, ATMD shall take the following actions :

- a) Dispatch a senior representative to Airport Emergency Centre to participate in the Aircraft Recovery Committee on the recovery plan.
- b) Coordinate with AAHK Joint Liaison Post and Apron Control Centre on aircraft movements to facilitate the transportation of recovery equipment to the scene when active runway or taxiways are involved.
- c) In the event that the aircraft accident occurs on the runway or its close vicinity, ascertain obstacles to runway operation and determine with AAHK Airport Management Director the contingency measures to instigate reduced runway length operation. Promulgate contingency procedures by NOTAM.



**CHAPTER 3****AIRCRAFT FULL EMERGENCY****CONTENT**

1	Introduction .....	3-1
2	ASU Actions .....	3-1
3	WMR Actions .....	3-1
4	Downgrading of Full Emergency.....	3-2
5	Other Actions .....	3-2
6	Transport Emergency Cover Sheet (Full Emergency).....	3-3
	Full Emergency Alert Message No.1 .....	3-4
7	Transport Emergency Cover Sheet (Full Emergency) .....	3-5
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10	Aerodrome Supervisor (ASU) Full Emergency Alerting List .....	3-9
11	Tower FSO Communication (TFC) Full Emergency Alerting List ..	3-10
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14	Flight Service Supervisor (FSS) Full Emergency Alerting List ...	3-13
15	Full Emergency Alerting Flow Chart .....	3-14

## AIRCRAFT FULL EMERGENCY

### 1 Introduction

- 1.1 Full emergency will be declared when an aircraft approaching the airport is, or suspected to be, in such difficulty that there is imminent danger of an accident.
- 1.2 The objective of declaring a “full emergency” status is to alert all responding agencies to prepare for mobilization and to mobilize Rescue and Fire Fighting services for immediate response at the airport should an aircraft accident occur.

### 2 ASU Actions

- 2.1 The duty Aerodrome Control Supervisor is responsible for ensuring that all alerting actions have been taken in accordance with the alerting list specified on pages 3-9 to 3-11.
- 2.2 ATC telephone communication with AFC shall be directed to RESCUE CONTROL located at the Sub-Fire Station (AFC\_SUB, SPE page 1). Rescue Control shall be responsible for message dissemination and tasking within AFC.
- 2.3 Providing weather conditions permits, aircraft experiencing difficulty which might result in a crash short of the runway should be advised to use Runway 07L/R.
- 2.4 After the safe landing of the subject aircraft, the Full Emergency alert may be cancelled or downgraded to Local Standby status with the approval of Rescue Leader (see para 4).

### 3 WMR Actions

- 3.1 The duty Watch Manager is responsible for ensuring that all alerting actions have been taken in accordance with the Alerting List specified on pages 3-12 and 3-13.
- 3.2 Should the emergency occur some distance from Hong Kong and should it seem probable that a search and rescue operation may be required, the Watch Supervisor, at his discretion, will activate and conduct operations from the Rescue Co-ordination Centre.

#### **4 Downgrading of Full Emergency**

- 4.1 In the event that during the course of a Full Emergency the circumstances change and reports indicate that there is no longer an imminent risk or danger to the aircraft or the occupants, the incident may be downgraded to a Local Standby.
- 4.2 Downgrading of a Full Emergency to a Local Standby should only occur when the pilot reports that the source of the emergency is under control and a safe landing is anticipated, or if the subject aircraft is on the ground, Rescue Leader reports the incident may be downgraded.
- 4.3 ASU/WMR are responsible for ensuring all parties are informed in accordance with the alerting lists on pages 3-9 to 3-13. In addition, ASU is responsible for informing all parties when the Local Standby is subsequently stood down in accordance with the alerting lists on pages 5-5 and 5-6.

#### **5 Other Actions**

- 5.1 Laying of foam carpets on the runway is not the policy at Hong Kong International Airport and cannot be made available due to lack of proper equipment and possible disruption to other traffic.
- 5.2 Under normal circumstances in dual runway operation, the emergency aircraft may affect or cause blockage to only one runway after landing and leaving the remaining runway operational. If situation indicated that we are on single runway operation, (e.g. one of the runway is on maintenance) consideration should hence be given to aircraft flying locally (e.g. training flight or air test flight) which may be unable to divert to a suitable alternate aerodrome. Other aircraft operators whose services will be affected should also be warned.
- 5.3 Multifax facility is employed to expedite the dispatch of alert messages via facsimile. The alertee fax numbers have been grouped under the Multifax List No. 202. The Multifax Password needs to be mentioned for every multifax transmission. See detailed operation of the Multifax on page 9-7.

6

**Transport Emergency**  
**MM 2**  
**Cover Sheet**

**To: Fax Support** (Fax : 2837 7200)

Please Multifax the attached message to my pre-registered list.

Company Name : Civil Aviation Department

Password : 240515

Multifax List No: 202

Contact Person : Aerodrome Supervisor

Registered Fax No : 2910 0168

Contact Tel No: 2910 6822

Total number of pages : Cover Sheet + [1]

Remarks : Emergency, please deliver my Multifax message immediately.

Signature \_\_\_\_\_ Date \_\_\_\_\_

Please fax this cover sheet together with your message to 2837 7200. We will fax back a message reference number to you in a few minutes.

You can photocopy this sheet for future use.

If you have any queries, please call Customer Services Executive on 2888 2242.

*Please note: Under the general conditions of service, customers shall not use the service for any illegal or improper purpose or for the purpose of sending unsolicited advertising messages.*

ATMD  
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(1 June 2006)