

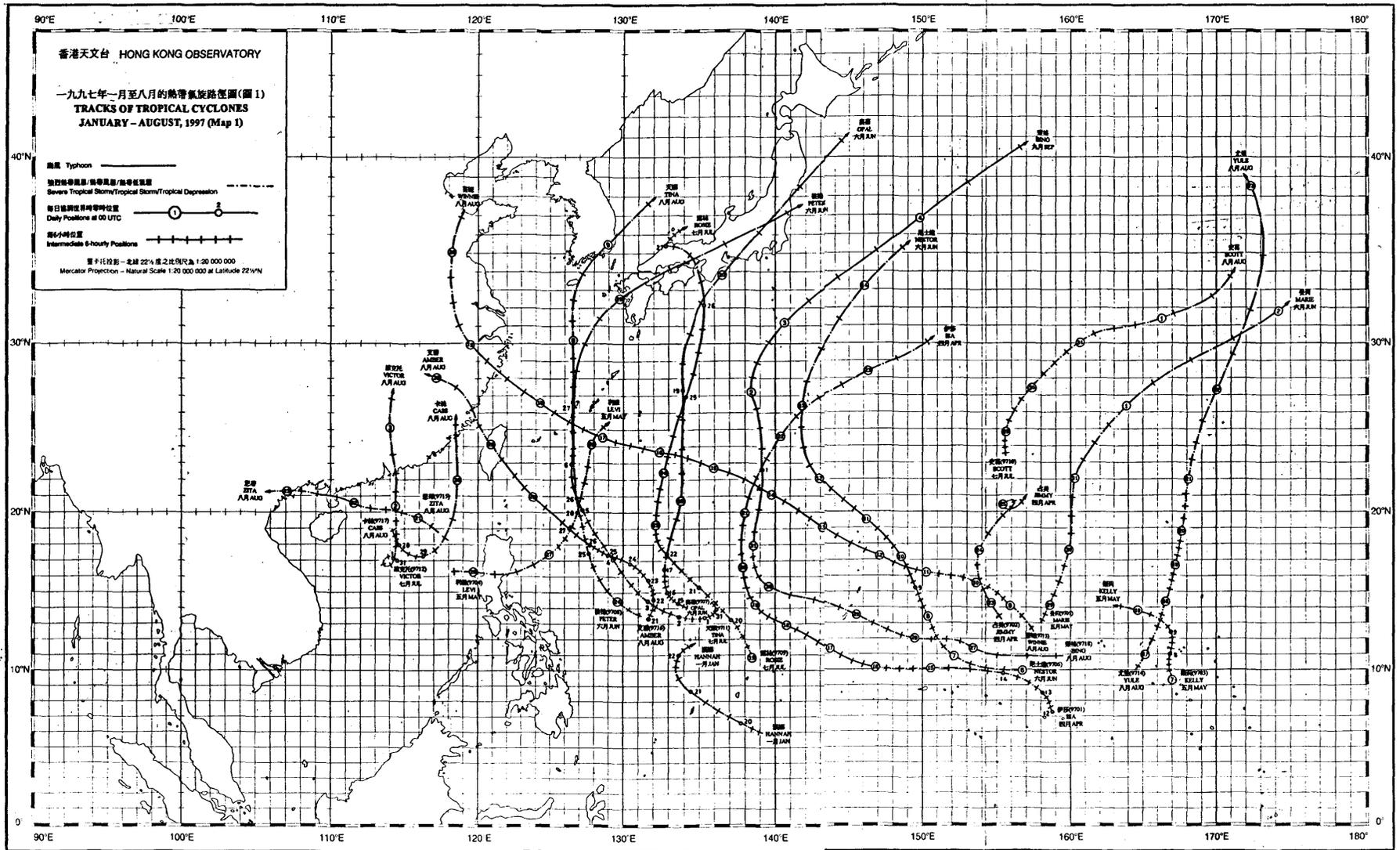


香港天文台

HONG KONG OBSERVATORY

一九九七  
熱帶氣旋

TROPICAL CYCLONES IN  
1997



香港天文台 HONG KONG OBSERVATORY

一九九七年一月至八月的熱帶氣旋路徑圖 (圖 1)  
**TRACKS OF TROPICAL CYCLONES**  
**JANUARY - AUGUST, 1997 (Map 1)**

颱風 Typhoon 
  
 強烈熱帶風暴/熱帶風暴/熱帶低氣壓 Severe Tropical Storm/Tropical Storm/Tropical Depression 
  
 每日格網世界時等時位置 Daily Positions at 00 UTC 
  
 每6小時位置 Intermediate 6-hourly Positions

墨卡托投影 - 北緯 22° 處之比例尺為 1:20 000 000  
 Mercator Projection - Natural Scale 1:20 000 000 at Latitude 22°N



一九九八年九月出版

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第一節

引言

**Section 1**

**INTRODUCTION**

除了在一九四零至一九四六年有過短暫中斷外，天文台自一八八四年以來便一直進行地面氣象觀測，並將整理好的數據攝列於由天文台出版的《氣象資料》年刊內。天文台在一九四七年開始進行高空氣象觀測後，該年刊便分成兩冊：分別是《氣象資料第一冊（地面觀測）》及《氣象資料第二冊（高空觀測）》。一九八一年，年刊第二冊改稱為《無線電探空儀觀測摘要》，而第一冊亦於一九八七年改稱為《香港地面觀測年報》。一九九三年，該兩刊物由一本名為《香港氣象觀測摘要》的新刊物所取代。這份摘要載列了地面及高空的氣象數據。

一八八四至一九三九年期間，部分對香港造成破壞的颱風的報告，曾以附錄形式載於《氣象資料》年刊內。而在一九四七至一九六七年出版的《天文台年報》，更擴充了有關熱帶氣旋的內容，收納所有導致香港吹烈風的熱帶氣旋的報告。其後，年刊系列加推《氣象資料第三冊（熱帶氣旋摘要）》，以記載每年北太平洋西部及南海區域所有熱帶氣旋的資料。此冊第一期在一九七一年出版，內容包括一九六八年赤道至北緯45度、東經100至160度範圍內所有熱帶氣旋的報告。由於有氣象偵察機提供報告（此項服務已在一九八七年八月停辦）及氣象衛星圖片，在原本資料短缺的海洋上追蹤熱帶氣旋位置的工作比從前順利得多。因此，第三冊的覆蓋範圍東面邊界於一九八五年開始，由東經160度伸展至180度。一九八七年，第三冊改稱為《熱帶氣旋年報》，但內容則大致上維持不變。由一九九七年起，此年報加增中文版本以雙語刊出。

在一九三九年及以前，每年北太平洋西部及南海區域的熱帶氣旋的路徑圖都收錄於《氣象資料》年刊內。由一九四七至一九六七年，則載列於《氣象資料第一冊》內。在一九六一年以前，熱帶氣旋的路徑只顯示每日位置。在較早期的刊物內，熱帶氣旋的每日定位時間在某程度上還未統一。但到了一九四四年以後，則一直維持以每日協調世界時（UTC）零時作定位。此項改變的資料詳載於天文台出版的《技術記錄第十一號第一冊》內。由一九六一年開始，所有熱帶氣旋的路徑圖都顯示每六小時的位置。

為了能儘早滿足傳媒、航運界及其他有關人士或團體的需求，天文台自一九六零年開始就影響香港的個別熱帶氣旋編寫報告初稿。這些報告可提供給有需要的人士使用。初時，天文台只就那些曾導致天文台懸掛暴風或烈風信號的熱帶氣旋編寫報告初稿，但到了一九六八年，則須就每個引致天文台懸掛熱帶氣旋警告信號的熱帶氣旋編寫報告初稿。

本年報根據熱帶氣旋中心附近的最高持續地面風速，把熱帶氣旋分為以下四個級別：

- ( i ) 熱帶低氣壓 ( T.D. ) 的最高持續風速為每小時63公里以下。
- ( ii ) 熱帶風暴 ( T.S. ) 的最高持續風速為每小時63至87公里。
- ( iii ) 強烈熱帶風暴 ( S.T.S. ) 的最高持續風速為每小時88至117公里。
- ( iv ) 颱風 ( T. ) 的最高持續風速為每小時118公里或以上。

除特別列明外，在本年報內提及的最高持續風速均為10分鐘內風速的平均值；每小時平均風速為該小時前60分鐘內的平均風速；每日雨量為該日香港時間午夜前24小時內的總雨量。

從一九四七年開始，北太平洋西部及南海的熱帶氣旋非正式地採用美國聯合颱風警告中心所編訂的名單上的名字。該份非正式名單間中會作出修訂，而表1.1是一九九六年開始生效的名單。一九八一年起，一個通用的熱帶氣旋識別系統正式被採用作為辨別每個出現在北太平洋西部及南海的熱帶氣旋的方法。在這個系統中，日本氣象廳獲委託為每個達到熱帶風暴或更強的熱帶氣旋編配一個四位數字編號。例如編號“9702”代表在一九九七年區內第二個被日本氣

象廳分類為熱帶風暴或更強的熱帶氣旋。在本年報內，此編號會顯示在緊隨著熱帶氣旋名稱的括弧內，例如熱帶風暴占美(9702)。

本年報內的地面風資料，是由天文台所操作的測風站網絡而錄得的。表1.2是該網絡內各站的位置及海拔高度。

熱帶氣旋產生的最大風暴潮是由裝置在香港多處的潮汐測量器量度的。圖1.1是本年報內提及的各個風速表及潮汐測量站的分佈地點。

本年報第二節是一九九七年所有影響北太平洋西部及南海區域的熱帶氣旋的概述。

而本年報第三節是一九九七年影響香港的熱帶氣旋的個別經歷報告，內容包括：

- (a) 該熱帶氣旋對香港造成的影響；
- (b) 懸掛熱帶氣旋警告信號的過程；
- (c) 香港各地錄得的最高陣風風速及最高每小時平均風速；
- (d) 香港天文台錄得的最低海平面氣壓；
- (e) 香港天文台及其他地方錄得的每日總雨量；
- (f) 香港各潮汐測量站錄得的最高潮位及最大風暴潮；及
- (g) 氣象衛星圖片及雷達影象（如適用）。

有關熱帶氣旋的各種資料及統計表載於本年報第四節內。

一九九七年每個熱帶氣旋的每六小時位置，連同當時的最低中心氣壓及最高持續風速，則表列於本年報的第五節內。

本年報依照內文需要採用了不同的時間系統。正式的時間以協調世界時（即UTC）為準。至於在熱帶氣旋的敘述中，用作表示每天各時段的詞彙，例如“上午”、“下午”、“早上”、“黃昏”等則是指香港時間。香港時間為協調世界時加八小時。

Apart from a short break during 1940-1946, surface observations of meteorological elements since 1884 have been summarized and published in the Observatory's, annual publication "Meteorological Results". Upper-air observations began in 1947 and from then onwards the annual publication was divided into two parts, namely "Meteorological Results Part I - Surface Observations" and "Meteorological Results Part II - Upper-air Observations". These two publications were re-titled "Summary of Radiosonde-Radiowind Ascents" and "Surface Observations in Hong Kong" in 1981 and 1987 respectively. In 1993, both of these publications were made obsolete, and since then surface and upper-air data have been included in one revised publication entitled "Summary of Meteorological Observations in Hong Kong".

During the period 1884 - 1939, reports on some destructive typhoons were printed as Appendices to the "Meteorological Results". This practice was extended and accounts of all tropical cyclones which caused gales in Hong Kong were included in the publication "Director's Annual Departmental Reports" from 1947 to 1967 inclusive. The series "Meteorological Results Part III - Tropical Cyclone Summaries" was subsequently introduced. It contained information on tropical cyclones over the western North Pacific and the South China Sea. The first issue, which contained reports on tropical cyclones occurring in 1968, was published in 1971. Tropical cyclones within the area bounded by the Equator, 45°N, 100°E and 160°E were described. With reconnaissance aircraft reports (terminated from August 1987 onwards) and satellite pictures facilitating the tracking of tropical cyclones over the otherwise data-sparse ocean, the eastern boundary of the area of coverage was extended from 160°E to 180° from 1985 onwards. In 1987, the series was re-titled as "Tropical Cyclones in 19YY" but its contents remained largely the same. "Tropical Cyclones in 1997" is the first bilingual (Chinese and English) edition of the series.

Tracks of tropical cyclones in the western North Pacific and the South China Sea were published in "Meteorological Results" up to 1939 and in "Meteorological Results Part I" from 1947 to 1967. Before 1961, only daily positions were plotted on the tracks. The time of the daily positions varied to some extent in the older publications but remained fixed at 0000 UTC after 1944. Details of the variation are given in the Observatory's publication "Technical Memoir No. 11, Volume 1". From 1961 onwards, six-hourly positions are shown on the tracks of all tropical cyclones.

Provisional reports on individual tropical cyclones affecting Hong Kong have been prepared since 1960 to meet the immediate needs of the press, shipping companies and others. These reports are printed and supplied on request. Initially, reports were only written on those tropical cyclones for which gale or storm signals had been hoisted in Hong Kong. By 1968, it had become necessary to produce a report on every tropical cyclone that necessitated the hoisting of tropical cyclone warning signals.

In this publication, tropical cyclones are classified into the following four categories according to the maximum sustained surface winds near their centres :

- (i) A TROPICAL DEPRESSION (T.D.) has maximum sustained winds of less than 63 km/h.
- (ii) A TROPICAL STORM (T.S.) has maximum sustained winds in the range 63-87 km/h.
- (iii) A SEVERE TROPICAL STORM (S.T.S.) has maximum sustained winds in the range 88-117 km/h.
- (iv) A TYPHOON (T.) has maximum sustained winds of 118 km/h or more.

Throughout this publication, maximum sustained surface winds when used without qualification refer to wind speeds averaged over a period of 10 minutes. Mean hourly winds are winds averaged over a 60-minute interval ending on the hour. Daily rainfall amounts are computed over a 24-hour period ending at midnight Hong Kong Time.

Over the western North Pacific and the South China Sea, since 1947 tropical cyclone names are assigned unofficially by the Joint Typhoon Warning Center in Guam according to a pre-determined but unofficial list that undergoes revisions from time to time. Table 1.1 shows list of names effective from 1996. Since 1981, a common system for identification of tropical cyclones in the western North Pacific and the South China Sea has been adopted and the Japan Meteorological Agency is delegated with the responsibility of assigning to each tropical cyclone of tropical storm intensity or above a numerical code of four digits. For example, the second

tropical cyclone of tropical storm intensity or above as classified by Japan Meteorological Agency which occurred within the region in 1997 was assigned the code "9702". In this publication, the appropriate code immediately follows the name of the tropical cyclone in bracket, e.g. Tropical Storm Jimmy (9702).

Surface wind data presented in this report were obtained from a network of anemometers operated by the Hong Kong Observatory. Details of the stations are listed on Table 1.2.

Maximum storm surges caused by tropical cyclones were measured by tide gauges installed at several locations around Hong Kong. The locations of anemometers and tide gauges mentioned in this report are shown in Figure 1.1.

In Section 2, an overview of all the tropical cyclones over the western North Pacific and the South China Sea in 1997 is presented.

The reports in Section 3 are individual accounts of the life history of tropical cyclones affecting Hong Kong in 1997. They include the following information:-

- (a) the effects of the tropical cyclone on Hong Kong;
- (b) the sequence of display of tropical cyclone warning signals;
- (c) the maximum gust peak speeds and maximum hourly mean winds recorded in Hong Kong;
- (d) the lowest sea level pressure recorded at the Hong Kong Observatory;
- (e) the daily amounts of rainfall recorded at the Hong Kong Observatory and selected locations;
- (f) the times and heights of the maximum sea level and maximum storm surge recorded at various tide stations in Hong Kong;
- (g) satellite pictures and radar displays (if applicable).

Statistics and information relating to tropical cyclones are presented in various tables in Section 4.

Six-hourly positions together with the corresponding estimated minimum central pressures and maximum sustained surface winds for individual tropical cyclones are tabulated in Section 5.

In this publication, different times are used in different contexts. The official reference times are given in Co-ordinated Universal Time and labelled UTC. Times of the day expressed as "a.m.", "p.m.", "morning", "evening" etc. in the tropical cyclone narratives are in Hong Kong Time which is eight hours ahead of UTC.

表 1.1 一九九六年起採用的非正式熱帶氣旋名單

TABLE 1.1 UNOFFICIAL TROPICAL CYCLONE NAME LIST IN USE SINCE 1996

<u>Column 1</u>	<u>第一欄</u>	<u>Column 2</u>	<u>第二欄</u>	<u>Column 3</u>	<u>第三欄</u>	<u>Column 4</u>	<u>第四欄</u>
ANN	安茵	ABEL	雅貝爾	AMBER	艾碧	ALEX	雅歷士
BART	巴特	BETH	貝芙	BING	秉格	BABS	寶絲
CAM	錦雯	CARLO	卡路	CASS	卡絲	CHIP	卓拔
DAN	丹尼	DALE	汀露	DAVID	大衛	DAWN	丹安
EVE	伊芙	ERNIE	安里	ELLA	艾娜	ELVIS	艾非斯
FRANKIE	法蘭基	FERN	芳雅	FRITZ	斐歷士	FAITH	菲芙
GLORIA	姬羅莉亞	GREG	格雷	GINGER	珍芝	GIL	格爾
HERB	赫拔	HANNAH	漢娜	HANK	漢奇	HILDA	希麗達
IAN	伊恩	ISA	伊莎	IVAN	艾雲	IRIS	愛莉絲
JOY	載儀	JIMMY	占美	JOAN	鍾茵	JACOB	雅各
KIRK	卻克	KELLY	姬莉	KEITH	祈輔	KATE	姬蒂
LISA	麗莎	LEVI	利維	LINDA	蓮達	LEO	利奧
MARTY	馬田	MARIE	曼莉	MORT	莫特	MAGGIE	瑪姬
NIKI	麗潔	NESTOR	尼士達	NICHOLE	麗歌	NEIL	尼爾
ORSON	奧臣	OPAL	奧蓓	OTTO	奧圖	OLGA	奧嘉
PIPER	佩萍	PETER	彼德	PENNY	彭妮	PAUL	保羅
RICK	歷克	ROSIE	露絲	REX	雷士	RACHEL	慧卓茹
SALLY	莎莉	SCOTT	史葛	STELLA	斯蒂娜	SAM	森姆
TOM	湯姆	TINA	天娜	TODD	杜特	TANYA	泰妮亞
VIOLET	維奧莉	VICTOR	維克托	VICKI	慧姬	VIRGIL	維賽爾
WILLIE	威利	WINNIE	芸妮	WALDO	華爾多	WENDY	芸蒂
YATES	雅芝	YULE	尤里	YANNI	茵妮	YORK	約克
ZANE	贊寧	ZITA	思蒂	ZEB	謝柏	ZIA	思雅

備註：當用完第四欄最後一個名稱（思雅）後，便再次重複使用第一欄首個名稱（安茵）。

Note: When the last name in Column 4 (ZIA) has been used, the sequence will begin again with the first name in Column 1 (ANN).

表1.2 本年報內各風速表的位置及海拔高度

TABLE 1.2 POSITIONS AND ELAVATIONS OF VARIOUS ANEMOMETERS MENTIONED IN THIS REPORT

站 Station		位置 position		風速表的
		北緯 latitude N	東經 Longitude E	海拔高度(米) Elevation of anemometer above M.S.L. (m)
中環 (天星碼頭)	Central (Star Ferry Pier)	22°17'	114°10'	17
中環廣場	Central Plaza	22°17'	114°10'	378
赤鱸角	Chek Lap Kok	22°18'	113°55'	13
長洲	Cheung Chau	22°12'	114°02'	99
長沙灣	Cheung Sha Wan	22°20'	114°09'	30
青洲	Green Island	22°17'	114°07'	105
啟德機場 (東南)	Kai Tak Airport (SE)	22°19'	114°13'	16
京士柏	King's Park	22°19'	114°10'	90
流浮山	Lau Fau Shan	22°28'	113°59'	50
平洲	Ping Chau	22°33'	114°26'	39
西貢	Sai Kung	22°23'	114°16'	31
沙螺灣	Sha Lo Wan	22°18'	113°54'	71
沙田	Sha Tin	22°24'	114°12'	16
石崗	Shek Kong	22°26'	114°05'	26
九龍天星碼頭	Star Ferry Pier Kowloon	22°18'	114°10'	18
打鼓嶺	Ta Kwu Ling	22°32'	114°09'	28
大尾篤	Tai Mei Tuk	22°29'	114°14'	71
大帽山	Tai Mo Shan	22°25'	114°07'	969
大埔滘	Tai Po Kau	22°27'	114°11'	28
塔門	Tap Mun	22°28'	114°21'	37
大老山	Tate's Cairn	22°22'	114°13'	588
鯽魚湖	Tsak Yue Wu	22°24'	114°19'	23
將軍澳	Tseung Kwan O	22°19'	114°15'	52
青衣 (青柏樓)	Tsing Yi (Ching Pak House)	22°21'	114°06'	136
屯門	Tuen Mun	22°24'	113°58'	69
橫瀾島	Waglan Island	22°11'	114°18'	82
黃竹坑	Wong Chuk Hang	22°15'	114°10'	30

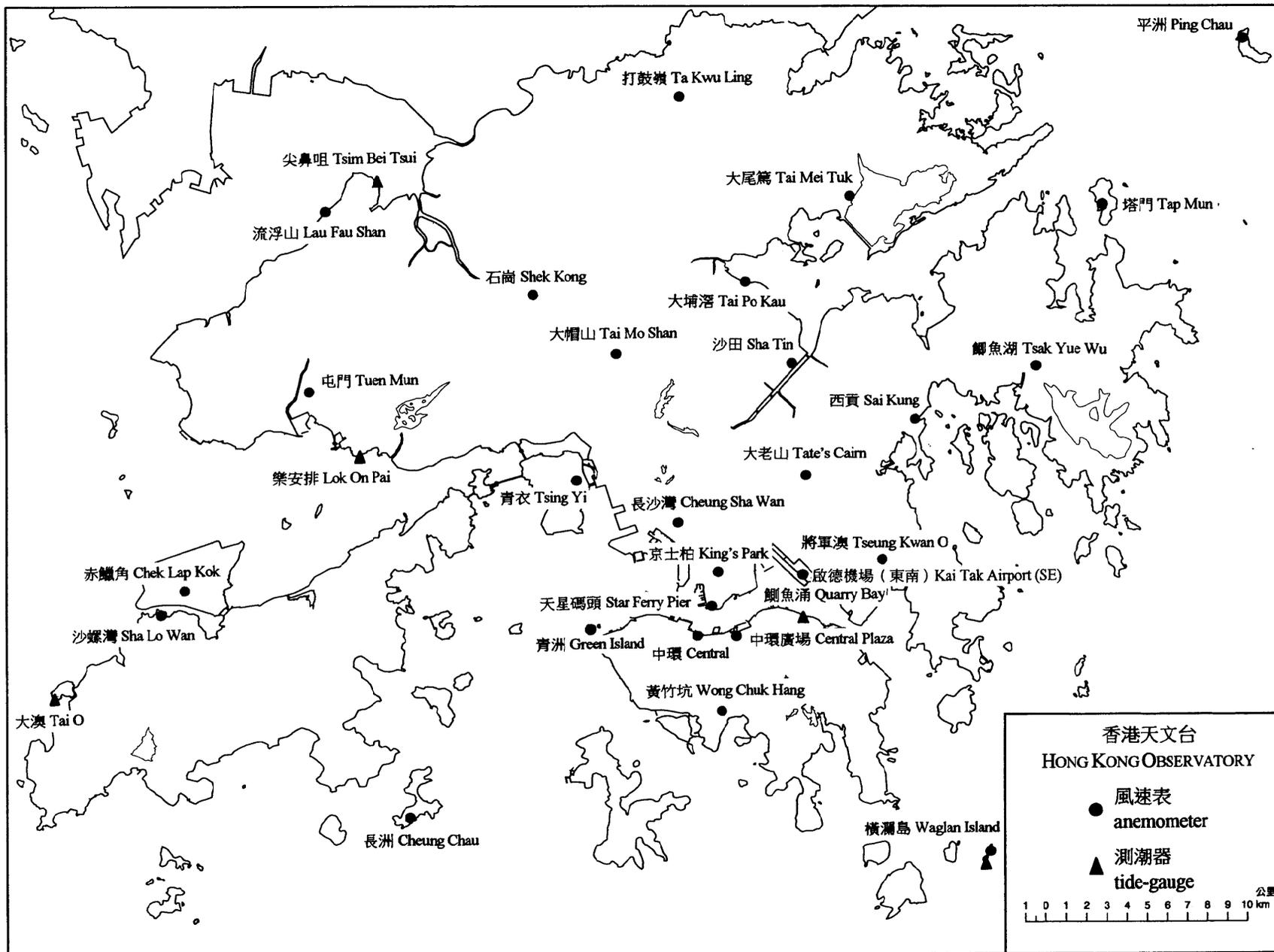


圖 1.1 本年報內提及的測風站及潮汐測量站之分佈地點。

Figure 1.1 Locations of anemometers and tide gauge stations mentioned in this report.

## 第二節

### 一九九七年熱帶氣旋概述

#### Section 2

#### **TROPICAL CYCLONE OVERVIEW FOR 1997**

一九九七年共有31\*個熱帶氣旋影響北太平洋西部及其鄰近海域即由赤道至北緯45度、東經100至180度所包括的範圍。與30年(1961-1990)的年平均31個熱帶氣旋相比，一九九七年的熱帶氣旋活動屬於正常。但是，能達到颱風程度的熱帶氣旋數目則比正常為高 - 一九九七年共有19個颱風形成而30年的年平均為15.6個。圖2.1是一九九七年熱帶氣旋及颱風的出現次數之每月分佈。圖2.2是這兩個參數於1961-1990年間的每月平均分佈。

在一九九七年，正當厄爾尼諾現象在太平洋東部發生的同時，西北太平洋及南海區域的熱帶氣旋活動亦出現了異常。它們包括：早在六月便已經有兩個颱風(分別是彼德和奧蓓)登陸日本、中國的颱風季節很晚才開始、菲律賓的熱帶氣旋活動明顯偏少、南海全年只有七個熱帶氣旋出現，比平均的十二個少。此外，越南南部和泰國南部罕有地在十一月初受到颱風蓮達的吹襲。

香港方面，一九九七年只有兩個熱帶氣旋需要天文台懸掛熱帶氣旋警告信號，而平均則是每年六個。颱風維克托(9712)是一九九七年第一個影響香港的熱帶氣旋。它的出現很晚，七月三十一日才於南海形成，而天文台當天便懸掛了熱帶氣旋警告信號，這是自一九四六年以來熱帶氣旋威脅本港最遲的一年。同時，維克托亦是自一九八三年颱風愛倫以來第一個需要香港懸掛九號烈風或暴風風力增強信號的熱帶氣旋。一九九七年第二個影響香港的熱帶氣旋是颱風思蒂(9715)，它需要天文台懸掛三號強風信號。

本年有10個熱帶氣旋影響香港責任範圍(即北緯10至30度、東經105至125度所包括的地區)，與30年(1961-1990)的年平均16.4個相比為少。在這10個熱帶氣旋中，有六個在香港責任範圍內形成。香港天文台於一九九七年共發出164個供船舶用的熱帶氣旋警告(表4.2)。

一九九七年熱帶氣旋為香港帶來的雨量(即該熱帶氣旋在出現於香港600公里範圍內至其消散或離開香港600公里範圍之後72小時期間，天文台錄得的雨量)總合共570.0毫米。比年平均雨量741.0毫米(1961-1990)低百分之23。它佔今年總雨量3 343.0毫米的百分之17。表4.8.1是那三個集結於香港600公里範圍內的熱帶氣旋雨量數據。

以下是一九九七年所出現的熱帶氣旋的回顧。

一九九七年的首個熱帶氣旋是熱帶低氣壓漢娜。它在一月十九日於雅蒲島南面約370公里處形成。漢娜初時向西北方前進。在一月二十二日，它採取了東北路徑移動並於海面上消散。

四月有兩個熱帶氣旋影響北太平洋西部及南海區域。

伊莎(9701)在四月十二日於關島東南偏東面約1 670公里處形成為一股熱帶低氣壓。伊莎初時移動緩慢，並逐漸增強為一熱帶風暴。翌日，它開始採取一個西北偏西的路徑移動。伊莎在四月十六日加強成為一股颱風，並在三天後開始轉向。在掠過硫黃島及小笠原群島後，伊莎在四月二十三日變為一溫帶氣旋。

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\*包括颱風奧利華(9719)及颱風柏加(9728)這兩個在北太平洋中部形成而橫過國際更日線進入北太平洋西部的熱帶氣旋。

占美(9702)在四月二十三日早上於關島東面約1 110公里處形成為一股熱帶低氣壓。初時它向西北偏北方前進並在翌日增強為一熱帶風暴。占美其後採取了一個偏東北的路徑移動。在四月二十五日，占美的移動變得緩慢並且於翌日在海面上消散。

五月有三個熱帶氣旋影響北太平洋西部及南海區域。

姬莉(9703)在五月七日於威克島以南約1 070公里處形成為一股熱帶低氣壓。姬莉初時向北緩慢移動，並在翌日增強成為一熱帶風暴。它在五月九日轉為向西北偏西移動並於翌日減弱為一低壓區。

於馬尼拉西北偏西約370公里處，一個不穩定區在五月二十六日的早上發展成一股熱帶低氣壓並命名為利維(9704)。當利維橫過呂宋後，它以東北的方向在太平洋上移動並於翌日增強成為一熱帶風暴。五月二十九日，利維變為一溫帶氣旋。

五月二十八日，曼莉(9705)於威克島西南約1 130公里處形成為一股熱帶低氣壓及向東北偏北移動。在海面上，曼莉逐漸增強並在五月三十一日日間達到颱風程度。曼莉於當日黃昏在太平洋上改為採取指向東北的路徑繼續前進並在六月二日變為一溫帶氣旋。

六月只有三個熱帶氣旋在北太平洋西部及南海區域形成。

尼士達(9706)在六月六日於威克島西南約1 480公里處形成為一股熱帶低氣壓。到六月九日，它增強成一颱風。尼士達在六月十三日於小笠原群島附近掠過，並改向東北移動。翌日，它變為一溫帶氣旋。

奧蓓(9707)在六月十四日於馬尼拉以東約1 380公里處發展成一股熱帶低氣壓，並於海面上緩慢移動。奧蓓在六月十六日增強成一強烈熱帶風暴。翌日，它進一步達至颱風強度並向北移動直趨日本。奧蓓於六月二十日在日本本州登陸，導致一人死亡及20人受傷。六月二十一日，奧蓓變為一溫帶氣旋。

彼德(9708)在六月二十三日於馬尼拉以東約1 070公里處形成為一股熱帶低氣壓。到六月廿六日，它增強成一颱風。於橫過琉球群島後，彼德在六月二十八日早上登陸日本造成三人死亡及41人受傷。它於翌日變為一溫帶氣旋。

七月有四個熱帶氣旋影響北太平洋西部及南海區域。其中颱風維克托(9712)更導致天文台懸掛九號烈風或暴風風力增強信號。

露絲(9709)在七月十九日於雅蒲島以北約180公里處形成為一熱帶低氣壓。它於翌日增強成一熱帶風暴並在七月二十一日繼續增強成為颱風。之後它向北移動直趨日本，而且在七月二十六日登陸日本的四國及本州。當進入日本海後，露絲在七月二十八日於海面上消散。露絲在日本造成三人死亡及47人受傷。

史葛(9710)在七月二十八日於威克島西北偏西約1 240公里處形成為一熱帶低氣壓，並很快地增強成為一熱帶風暴。它在七月二十九日採取一東北路徑在太平洋上移動並於八月二日變為一溫帶氣旋。

天娜(9711)在七月三十日於雅蒲島西北偏北約580公里處形成為一熱帶低氣壓。翌日它在海上增強成一熱帶風暴並且移動緩慢。天娜稍後向西北移動，並於八月五日增強為一颱風。天娜逐漸採取一偏北路徑移動，它在八月九日掠過南韓並減弱為一熱帶風暴。天娜於當晚變為一溫帶氣旋。

七月份最後一個熱帶氣旋是維克托(9712)。它在七月三十一日於香港以南約590公里處形成為一熱帶低氣壓。八月二日早上它增強成颱風而且向北移動趨向廣東沿岸。當晚，維克托減弱為強烈熱帶風暴並在香港登陸。其後它進一步移入內陸，於翌日在陸上消散。有關維克托的詳述刊於第三節內。

八月有六個熱帶氣旋於北太平洋西部及南海區域形成。其中颱風思蒂亦令天文台懸掛三號強風信號。

芸妮(9713)在八月八日於關島以東約1 350公里處發展成為一熱帶低氣壓。它向西北移動，並於三日後達到颱風強度。八月十七日，芸妮橫過琉球群島並導致三名小童死亡及一人失蹤。其後芸妮進入東海，而與其外圍環流相關的大雨亦在台灣造成嚴重破壞。水浸及山泥傾瀉造成約44人死亡，80多人受傷。此外，它更令112 000多戶人家電力中斷。芸妮在八月十八日晚於浙江省登陸，造成212人死亡及2 158人受傷。大約有100 000間房屋受損及667 000公頃農地受毀壞。直接經濟損失約共41.39億美元。登陸後芸妮轉向東北偏北移動及減弱。它最終在八月二十日變為一溫帶氣旋。

尤里(9714)在八月十七日早上於威克島西南偏南約1 020公里處形成為一股熱帶低氣壓。它向東北偏北移動並於八月二十日逐漸增強為一強烈熱帶風暴。尤里向北加速移動，在八月二十三日它變為一溫帶氣旋。

颱風思蒂(9715)在八月二十日晚上於香港東南約470公里處發展成為一熱帶低氣壓。它向西北偏西移動越過南海北部並迅速增強。思蒂在八月二十二日達至颱風強度然後掠過雷州半島。它最後在越南北部登陸並於陸上消散。有關思蒂的詳述刊於第三節內。

艾碧(9716)在八月二十一日於馬尼拉以東約1 130公里處形成為一熱帶低氣壓。它採取西北途徑移動並於三日後增強至颱風強度。艾碧在八月二十九日早上橫掃台灣，導致一人失蹤及37人受傷。當它減弱為一強烈熱帶風暴後便在福州附近登陸。艾碧於翌日在陸地上消散並為福州市帶來嚴重水浸。雖然沒有人受傷，但中國的經濟損失約為0.52億美元。

秉格(9718)在八月二十六日的早上於關島以東約1 570公里處形成為一熱帶低氣壓。它以西北偏西途徑移動及後增強為一熱帶風暴在八月二十九日掠過關島。秉格其後轉向北推進並在八月三十一日增強成颱風。它在九月二日採取東北路徑移動並在兩日後變為一溫帶氣旋。

熱帶低氣壓卡絲(9717)在八月二十七日於東沙西南偏西約350公里處形成。它初時向東南偏南移動，但兩日後轉向北移直趨福建。卡絲對本港並未構成威脅，它在八月三十日於廈門附近登陸並迅速減弱為一低壓區。

除了秉格外，九月還有五個熱帶氣旋集結在北太平洋西部及南海區域。

熱帶低氣壓奧利華(9719)在九月四日於威克島東南偏東約1 540公里處橫過國際更日線進入北太平洋西部。它向西北偏西移動並在九月九日早上達到颱風強度。奧利華其後穩定地向西北推進並在九月十五日橫過琉球群島。接著它採取一東北路徑移動,然後在九月十六日於日本鹿兒島附近登陸。翌日,奧利華變為一溫帶氣旋。在日本,受颱風奧利華吹襲下,共有12人死亡或失蹤及八萬多人需要疏散。

大衛(9720)在九月十二日於威克島東南偏南約740公里處發展成為一熱帶低氣壓。它採取一西北路徑移動並在九月十四日增強為一颱風。大衛在九月十九日於日本東面的海域轉向東北移動,然後在翌日的早上變為一溫帶氣旋。

艾娜在九月二十一日於威克島東北偏北約700公里處形成為一熱帶低氣壓並以西北偏西方向移動。兩日後,它轉為向西北推進及消散於海上。

斐歷士(9721)在九月二十三日於南海西沙島約160公里處發展為一熱帶低氣壓並在翌日迅速增強為一強烈熱帶風暴。斐歷士向西移動,在九月二十五日於越南中部登陸並在翌日減弱為一低壓區。

珍芝(9722)在九月二十四日早上於威克島東南偏南約740公里處發展為熱帶低氣壓。它以西北偏北方向移動,在九月二十六日增強為一颱風。珍芝其後逐漸轉向東北移動並在九月三十日變為一溫帶氣旋。

十月有四個熱帶氣旋影響北太平洋西部及南海區域。

熱帶低氣壓漢奇在十月三日於南海西沙島以南約240公里處形成。它在越南中部沿岸水域以西北偏西方向移動及在翌日於海上消散。

艾雲(9723)在十月十四日早上於關島東南偏東約630公里處發展成為一熱帶低氣壓。它在十月十六日增強至颱風強度,然後於十月二十日早上掠過呂宋北部,並導致當地發生嚴重水浸及山泥傾瀉。一名男子遇溺身亡及800多間房屋被毀。其後,艾雲採取東北路徑離開呂宋及減弱。它在十月二十四日變為一溫帶氣旋。

另一與艾雲同期的熱帶氣旋鍾茵(9724)同時在十月十四日於威克島以南約830公里處形成為一熱帶低氣壓。在太平洋上它以西北偏西路徑移動並在兩日後增強為一颱風。十月二十一日,鍾茵開始轉向東北移動及逐漸減弱。它於十月二十三日變為一溫帶氣旋。

祈輔(9725)在十月二十八日於威克島以南約1 350公里處形成為一熱帶低氣壓。它以西北偏西路徑移動並於十月三十一日增強至颱風強度。在太平洋上前進了五天後,祈輔採取了東北途徑移動,然後於小笠原群島附近掠過並在十一月八日變為一溫帶氣旋。

十一月有兩個熱帶氣旋在北太平洋西部及南海區域內形成。

蓮達(9726)在十一月一日早上於南沙島以南約340公里處形成為一熱帶低氣壓。它向西移動並在十一月二日增強為一強烈熱帶風暴而在越南南部肆虐。當地共有587人死亡,860人受傷及3 000多名漁民失蹤。經濟損失共約4億美元。蓮達亦影響鄰國柬埔寨,造成最少23人死亡及200多人失蹤。蓮達在十一月四日早上於泰國登陸。在蓮達的吹襲下,共有九人死

亡，14人受傷及80多人失蹤。蓮達稍後橫過緬甸南部並轉入安達曼海。蓮達進入孟加拉灣後，移動轉為緩慢並於十一月七日減弱為一低壓區。

當蓮達消散後，莫特(9727)在十一月十一日於關島西南偏西約690公里處發展為一熱帶低氣壓。它以西北偏西路徑移動並在翌日增強為一熱帶風暴。莫特在十一月十六日於呂宋東岸海面上消散。

十二月只有一個熱帶氣旋影響北太平洋西部及南海區域。

熱帶風暴柏加(9728)在十二月七日於威克島東南約1 860公里處橫過國際更日線進入北太平洋西部。它初時向西移動並於十二月十一日增強為一颱風。柏加在十二月十六日橫掃關島。在柏加的吹襲下，共有20人受傷及2 500人被迫要撤離。一所發電廠受嚴重破壞，關島國際機場亦被逼封閉。總損失約共二億美元。當柏加肆虐關島後，它轉向西北移動然後在十二月二十一日變為強烈熱帶風暴。柏加急速減弱及在翌日變為一低壓區。

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備註：人命傷亡及財物損毀數據是根據報章報導輯錄而成。

In 1997, there were 31\* tropical cyclones over the western North Pacific and the adjacent seas bounded by the equator, 45°N, 100°E and 180°. Compared with the 30-year annual average (1961-1990) of 31 tropical cyclones, 1997 was a year with normal tropical cyclone activity. However, the number of tropical cyclones attaining typhoon intensity was above-normal - a total of 19 typhoons in 1997 against the 30-year annual average of 15.6. The monthly distributions of the frequency of first occurrence of tropical cyclones and that of typhoons for 1997 are shown in Figure 2.1. The monthly mean frequencies of these two parameters during the years 1961 - 1990 are shown in Figure 2.2.

In 1997, unusual patterns of tropical cyclone activity were observed over the western North Pacific and the South China Sea, coinciding with the development of the El Nino event over the eastern Pacific. Two early typhoons, Peter and Opal, struck Japan in June whereas the tropical cyclone season started late in China. Tropical cyclone activity was also very much below normal in the Philippines and only 7 tropical cyclones, 5 below the normal number of 12, occurred in the South China Sea. In addition, in early November Typhoon Linda hit southern Viet Nam and southern Thailand, an area not normally in the path of tropical cyclones.

In Hong Kong, only two tropical cyclones necessitated the hoisting of tropical cyclone warning signals in 1997 compared with the normal occurrence of six. Typhoon Victor (9712), the first tropical cyclone to affect Hong Kong in the year, necessitated the hoisting of tropical cyclone warning signal on 31 July. This was the latest time in the year since 1946 that tropical cyclones pose a threat to Hong Kong. Typhoon Victor also necessitated the hoisting of the Increasing Gale or Storm Signal No.9, the highest signal raised since Typhoon Ellen in 1983. Typhoon Zita (9715) was the second tropical cyclone to affect Hong Kong in the year. It necessitated the hoisting of the Strong Wind Signal No.3.

During the year, 10 tropical cyclones occurred within the area of responsibility of Hong Kong (i.e. the area bounded by 10°N, 30°N, 105°E and 125°E). This number was less than the 30-year (1961-90) annual average of 16.4. Of the 10 tropical cyclones, six developed within Hong Kong's area of responsibility. Altogether, 164 tropical cyclone warnings to ships and vessels were issued by the Hong Kong Observatory in 1997 (Table 4.2).

The total tropical cyclone rainfall (defined as the total rainfall recorded at the Hong Kong Observatory from the time when a tropical cyclone was centred within 600 km of Hong Kong to 72 hours after the tropical cyclone has dissipated or moved outside 600 km of Hong Kong) in 1997 amounted to 570.0 mm, 23 per cent below the mean annual value of 741.0 mm (1961-1990). It accounted for 17 per cent of the year's total rainfall of 3 343.0 mm. Rainfall figures associated with those tropical cyclones coming within 600 km of Hong Kong, altogether three, are given in Table 4.8.1.

A review of all the tropical cyclones in 1997 is given in the following paragraphs.

The first tropical cyclone of 1997 was a tropical depression named Hannah. It formed about 370 km south of Yap on 19 January. Moving northwestwards at first, Hannah adopted a northeastward track and dissipated over water on 22 January.

Two tropical cyclones occurred over the western North Pacific and the South China Sea in April.

Isa (9701) formed as tropical depression about 1 670 km east-southeast of Guam on 12 April. It was slow moving at first, but took on a west-northwestward track the next day after intensifying into a tropical storm. Isa attained typhoon strength on 16 April and started recurving three days later. Moving northeastwards, Isa skirted past Iwo Jima and the Ogasawara Islands and became extratropical on 23 April.

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\* including Typhoon Oliwa (9719) and Typhoon Paka (9728) which formed over the central North Pacific and moved across the International Date Line into the western North Pacific.

Jimmy (9702) developed as a tropical depression about 1 110 km east of Guam on the early morning of 23 April. Moving north-northwestwards, it deepened into a tropical storm the next day. Jimmy then adopted a northeastward course. It became slow moving on 25 April and dissipated over water the following day.

There were three tropical cyclones over the western North Pacific and the South China Sea in May.

Kelly (9703) formed as a tropical depression about 1 070 km south of Wake Island on 7 May. Drifting northwards, it deepened into a tropical storm the next day. Kelly adopted a west-northwestward track on 9 May and weakened into an area of low pressure the next day.

An area of disturbance developed into a tropical depression named Levi (9704) about 370 km west-northwest of Manila on the early morning of 26 May. After traversing Luzon, Levi moved northeastwards over the Pacific and intensified into a tropical storm the next day. It soon became extratropical on 29 May.

Marie (9705) developed as a tropical depression about 1 130 km southwest of Wake Island on 28 May and moved north-northeastwards. Gathering strength over water, Marie attained typhoon intensity during the day on 31 May. Marie took on a northeastward course over the Pacific that evening and soon became extratropical on 2 June.

Only three tropical cyclones formed over the western North Pacific and the South China Sea in June.

Nestor (9706) formed as a tropical depression about 1 480 km southwest of Wake Island on 6 June. It attained typhoon intensity on 9 June. Skirting past the Ogasawara Islands on 13 June, Nestor took on a northeastward track and became extratropical the next day.

Opal (9707) developed as a tropical depression about 1 380 km east of Manila on 14 June. Drifting slowly over water, it intensified into a severe tropical storm on 16 June. Opal attained typhoon strength the next day and moved northwards towards Japan. It made landfall over Honshu on 20 June, where it killed one man and injured 20. Opal became extratropical on 21 June.

Peter (9708) formed as a tropical depression about 1 070 km east of Manila on 23 June. It intensified into a typhoon on 26 June. Having traversed the Ryukyu Islands, Peter made landfall over Japan on the morning of 28 June where three people were killed and 41 others were injured. It became extratropical the next day.

Four tropical cyclones occurred over the western North Pacific and the South China Sea in July. Amongst them, Typhoon Victor (9712) necessitated the hoisting of the Increasing Gale or Storm Signal No. 9 in Hong Kong.

Rosie (9709) formed as a tropical depression about 180 km north of Yap on 19 July. It deepened into a tropical storm the next day and attained typhoon intensity on 21 July. Heading northwards towards Japan, Rosie made landfall over Shikoku and Honshu on 26 July. It then entered the Sea of Japan and dissipated over water on 28 July. In Japan, three people were killed and 47 were injured in the wake of Rosie.

Scott (9710) developed as a tropical depression about 1 240 km west-northwest of Wake Island on 28 July. Gathering strength over water, it quickly deepened into a tropical storm. Scott took on a northeastward track over the Pacific on 29 July and became extratropical on 2 August.

Tina (9711) formed as a tropical depression about 580 km north-northwest of Yap on 30 July. It deepened into a tropical storm the next day while moving slowly over water. Tracking northwestwards, Tina intensified into a typhoon on 5 August. Adopting a northward course, it skirted past South Korea on 9 August and weakened into tropical storm. Tina became extratropical that evening.

The last tropical cyclone in July was Victor (9712). It formed as a tropical depression about 590 km south of Hong Kong on 31 July, intensifying into a typhoon on the morning of 2 August while moving northwards towards the coast of Guangdong. Weakening into a severe tropical storm, Victor made landfall over Hong

Kong that evening. It moved further inland and dissipated the next day. A detailed report on Victor is presented in Section 3.

Six tropical cyclones formed over the western North Pacific and the South China Sea in August. Amongst them, Typhoon Zita (9715) necessitated the hoisting of the Strong Wind Signal No. 3 in Hong Kong.

Winnie(9713) developed as a tropical depression about 1 350 km east of Guam on 8 August. Moving northwestwards, it attained typhoon strength three days later. Prior to entering the East China Sea, Winnie traversed the Ryukyu Islands on 17 August where three children were killed and one man was reported missing. The outer circulation of Winnie brought heavy rain, flooding and landslides to Taiwan where 44 people were reported killed and more than 80 injured. Besides, it also disrupted electricity supplies to at least 112 000 households. Winnie made landfall over Zhejiang on the late evening of 18 August. A total of 212 people were killed and 2 158 injured. About 100 000 houses were damaged and 667 000 hectares of farmland were devastated. Direct economic loss was estimated at US\$4 139 million. After making landfall, Winnie turned north-northeastwards and weakened. It finally became extratropical on 20 August.

Yule (9714) formed as a tropical depression about 1 020 km south-southwest of Wake Island on the early morning of 17 August. Moving north-northeastwards, it intensified gradually into a severe tropical storm on 20 August. Accelerating towards the north, Yule became extratropical on 23 August.

Typhoon Zita (9715) developed as a tropical depression about 470 km southeast of Hong Kong on the late evening of 20 August. It moved west-northwestwards across the northern part of the South China Sea and intensified rapidly. Having attained typhoon strength, it traversed Leizhou on 22 August and subsequently made landfall over northern Vietnam where it dissipated over land. A detailed report on Zita is presented in Section 3.

Amber (9716) formed as a tropical depression about 1 130 km east of Manila on 21 August. It tracked northwestwards and attained typhoon intensity three days later. Amber rampaged through Taiwan on the morning of 29 August where one person was reported missing and 37 were injured. It then weakened into a severe tropical storm and made landfall near Fuzhou. Amber dissipated over land the next day and caused serious flooding in Fuzhou. Albeit nobody was injured, the economic loss in China was estimated at US\$52 million.

Bing (9718) formed as a tropical depression about 1 570 km east of Guam on 26 August. Moving west-northwestwards, it intensified into a tropical storm and then skirted past Guam on 29 August. Turning towards the north, Bing attained typhoon strength on 31 August. It adopted a northeastward track on 2 September and became extratropical two days later.

Tropical Depression Cass (9717) developed about 350 km west-southwest of Dongsha on 27 August. It moved south-southeastwards at first, but gradually adopted a northward track towards Fujian two days later. Cass did not pose any threat to Hong Kong and it finally landed near Xiamen on 30 August, soon dissipating over land into an area of low pressure.

Apart from Bing, there were five more tropical cyclones over the western North Pacific and the South China Sea in September.

A tropical depression named Oliwa (9719) crossed the International Date Line about 1 540 km east-southeast of Wake Island and moved into the western North Pacific on 4 September. It tracked west-northwestwards and attained typhoon intensity on the early morning of 9 September. Oliwa moved northwestwards steadily and traversed Ryukyu Islands on 15 September. Turning northeastwards, it made landfall near Kagoshima on 16 September and became extratropical the next day. In Japan, 12 people were killed or reported missing and more than 80 000 people had to be evacuated in the wake of Oliwa.

David (9720) developed as a tropical depression about 740 km south-southeast of Wake Island on 12 September. It took on a northwestward course and intensified into a typhoon on 14 September. After

recurving northeastwards to the east of Japan on 19 September, David became extratropical early next morning.

Ella formed as a tropical depression about 700 km north-northeast of Wake Island on 21 September and moved west-northwestwards. It turned northwestwards and dissipated over water two days later.

Fritz (9721) developed as a tropical depression over the South China Sea about 160 km southwest of Xisha Dao on 23 September and deepened rapidly into a severe tropical storm the next day. Moving westwards, Fritz made landfall over central Vietnam on 25 September and weakened into an area of low pressure the next day.

Ginger (9722) developed as a tropical depression about 740 km south-southwest of Wake Island on the early morning of 24 September. Tracking north-northwestwards, it intensified into a typhoon on 26 September. Ginger then turned towards the northeast and became extratropical on 30 September.

Four tropical cyclones occurred over the western North Pacific and the South China Sea in October.

Tropical Depression Hank formed over the South China Sea about 240 km south of Xisha Dao on 3 October. Moving west-northwestwards off the coast of central Vietnam, Hank dissipated over water the next day.

Ivan (9723) formed as a tropical depression about 630 km east-southeast of Guam on the early morning of 14 October. Having attained typhoon strength on 16 October, Ivan skirted past the northern tip of Luzon on the morning of 20 October and caused severe flooding and landslides there. One man drowned and more than 800 houses were damaged. Ivan took on a northeastward track as it left Luzon. It then gradually weakened and became extratropical on 24 October.

Joan (9724), a contemporary of Ivan, formed as a tropical depression about 830 km south of Wake Island at the same time on 14 October. It intensified into a typhoon two days later while tracking west-northwestwards over the Pacific, but weakened gradually after recurving northeastwards on 21 October. Joan became extratropical on 23 October.

Keith (9725) developed as a tropical depression about 1 350 km south of Wake Island on 28 October. On a west-northwestward track, it intensified gradually and attained typhoon strength on 31 October. After traversing the Pacific for five days, Keith adopted a northeastward course and passed close to the Ogasawara Islands. It became extratropical on 8 November.

Two tropical cyclones formed over the western North Pacific and the South China Sea in November.

Linda (9726) formed as a tropical depression about 340 km south of Nansha Dao on the early morning of 1 November. Tracking westwards and intensifying into a severe tropical storm, it devastated the southern tip of Vietnam on 2 November where 587 people were killed, 860 injured and about 3 000 fishermen reported missing. Economic loss in Vietnam was put at nearly US\$400 million. Linda also affected Cambodia where at least 23 people were killed. The number of people missing was over 200. Linda made landfall over Thailand on the early morning of 4 November. Its passage over that country caused nine deaths and 14 injuries. Another 80 people were reported missing. Linda then traversed southern Myanmar and entered the Andaman Sea. Moving into the Bay of Bengal, Linda became slow moving and degenerated into an area of low pressure on 7 November.

After the dissipation of Linda, Mort (9727) developed as a tropical depression about 690 km west-southwest of Guam on 11 November. Tracking west-northwestwards, it deepened into a tropical storm the next day. Mort dissipated off the east coast of Luzon on 16 November.

Only one tropical cyclone occurred over the western North Pacific and the South China Sea in December.

A tropical storm named Paka (9728) crossed the International Date Line about 1 860 km southeast of Wake Island and moved into the western North Pacific on 7 December. It tracked westwards at first and intensified into a typhoon on 11 December. Paka rampaged through Guam on 16 December. In Guam, 20 people were injured and 2 500 people had to be evacuated. A power plant was damaged in Guam and the international airport was also forced to close. Total damage incurred was estimated at US\$ 200 million. After battering Guam, Paka turned northwestwards and became a severe tropical storm on 21 December. It weakened rapidly and degenerated into an area of low pressure the next day.

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Note: Casualties and damage figures were compiled from press reports.

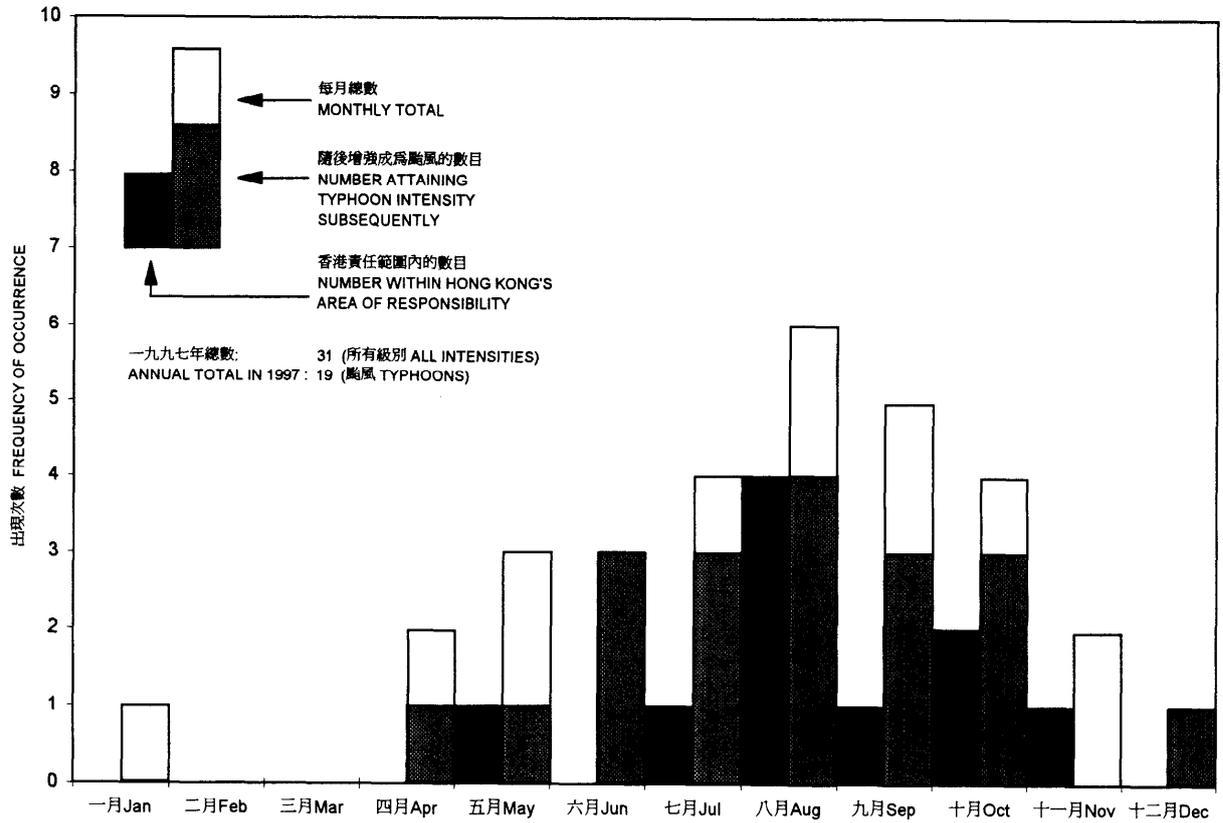


圖 2.1 一九九七年在北太平洋西部及南海區域的熱帶氣旋出現次數之每月分佈。

Figure 2.1 Monthly distribution of the frequency of first occurrence of tropical cyclones in the western North Pacific and the South China Sea in 1997.

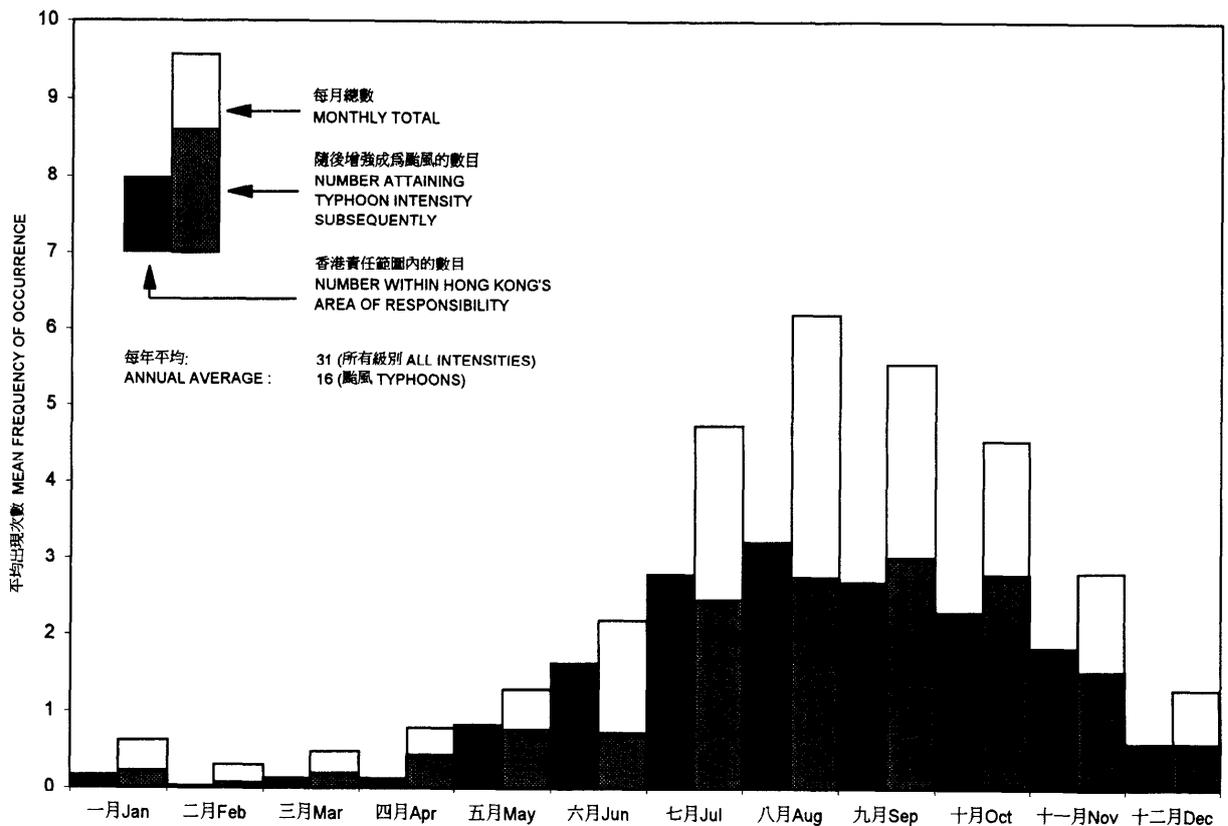


圖 2.2 一九六一至一九九零年間在北太平洋西部及南海區域的熱帶氣旋平均出現次數之每月分佈。

Figure 2.2 Monthly distribution of the mean frequency of first occurrence of tropical cyclones in the western North Pacific and the South China Sea, 1961-1990.

表 2.1 香港各熱帶氣旋警告信號之意義

TABLE 2.1 MEANING OF ALL TROPICAL CYCLONE WARNING SIGNALS IN HONG KONG

信號 Signal		顯示 Display		信號之意義 Meaning of the Signal
		符號 Symbol	燈號 Lights	
戒備 Standby	1		白 White 白 White 白 White	有一熱帶氣旋集結於香港約800公里之範圍內，稍後可能影響香港。 A tropical cyclone is centred within about 800 kilometres (km) of Hong Kong and may later affect Hong Kong.
強風 Strong Wind	3		綠 Green 白 White 綠 Green	維多利亞港內吹強風或將有強風，持續風力每小時41-62公里，陣風可能超過每小時110公里。 Strong wind is expected or blowing in the Victoria harbour, with a sustained speed of 41-62 kilometres per hour (km/h), and gusts which may exceed 110 km/h.
西北 烈風或暴風 NW'LY Gale or Storm	8 西北 NW		白 White 綠 Green 綠 Green	維多利亞港內風力已達或將達每小時63-117公里之烈風或暴風程度，由所指之方向吹襲，而陣風可能超過每小時180公里。 Gale or storm force wind is expected or blowing in the Victoria harbour, with a sustained wind speed of 63-117 km/h from the quarter indicated and gusts which may exceed 180 km/h.
西南 烈風或暴風 SW'LY Gale or Storm	8 西南 SW		綠 Green 白 White 白 White	
東北 烈風或暴風 NE'LY Gale or Storm	8 東北 NE		綠 Green 綠 Green 白 White	
東南 烈風或暴風 SE'LY Gale or Storm	8 東南 SE		白 White 白 White 綠 Green	
烈風或暴風 風力增強 Increasing Gale or Storm	9		綠 Green 綠 Green 綠 Green	
颶風 Hurricane	10		紅 Red 綠 Green 紅 Red	風力已達或將達颶風程度。即持續風力每小時118公里或以上，而陣風可能超過每小時220公里。 Hurricane force wind is expected or blowing, with sustained speed reaching upwards from 118 km/h and with gusts that may exceed 220 km/h.

## 第三節

一九九七年影響香港的熱帶氣旋

### Section 3

**TROPICAL CYCLONES  
AFFECTING HONG KONG IN 1997**

## 3.1

## 颱風維克托(9712)

七月三十一日至八月三日

在南海上，一個熱帶低氣壓在七月三十一日於香港以南約590公里處形成並命名為維克托。它初時移動緩慢，在翌日早上增強成熱帶風暴，更在傍晚時成為一強烈熱帶風暴。其後維克托開始向北加速，更於八月二日早上進一步增強成颱風。它在到達華南沿岸前減弱為一股強烈熱帶風暴。維克托其後登陸香港並繼續向廣東內陸推進，它最終於八月三日在陸地上消散。維克托在廣東及福建省造成嚴重破壞，共76人死亡、1 000多人受傷。約85 000間房屋被毀或受破壞，經濟損失約共5.864億美元。

澳門方面，除了塌樹和棚架倒塌外，低窪地區亦出現水浸。幸好並無傷亡報告。

在本港，一號戒備信號在七月三十一日下午2時正懸掛。翌日維克托外圍環流開始影響沿岸區域。本地偏東風開始加強及有狂風驟雨。三號強風信號在翌日早上10時正懸掛。在八月二日早上，維克托達到颱風強度，從人造衛星雲圖可看到它開始形成一可辨的眼區。接著，天文台在中午12時正改懸八號東北烈風或暴風信號。當天下午，離岸地區有持續的烈風，而海面更出現非常大浪。

隨著維克托繼續逼近華南沿岸，天文台在當天的下午4時50分懸掛自一九八三年以來的首次九號烈風或暴風增強信號。當晚8時左右，維克托的中心在香港天文台以西約10公里掠過並減弱為強烈熱帶風暴。然後它的中心橫過青馬大橋，繼而在深井附近登陸。在這時候，香港曾吹旋風。

登陸後，維克托繼續向北移動，而本地風向則漸轉西南。隨著維克托的遠離，天文台在晚上11時40分改掛八號西南烈風或暴風信號。其後本地烈風減弱，天文台在翌日凌晨3時30分改掛三號強風信號，並於早上4時45分除下所有風球。在風球懸掛期間，橫瀾島和長洲錄得135公里每小時以上的最高陣風，而京士柏和天星碼頭錄得的最高陣風亦分別高達104及115公里每小時。在八月二日下午7時28分天文台錄得最低瞬時海平面氣壓為973.0百帕斯卡。

維克托襲港期間，一名男子在赤柱附近由於拯救另外兩名被大浪捲走的男子時不幸遇溺喪身。本港各處最少有3宗山泥傾瀉、20宗水浸、7宗棚架倒塌、10宗高空墮物及110宗大樹倒下的報告。約共58人在各種風暴有關的意外中受傷。惡劣天氣對交通造成影響。在風暴中，於本年較早時通車的青馬大橋其上下層通道首次需要完全封閉。

維克托的外圍雨帶在八月三日繼續為本港帶來連場豪雨。造成約14宗山泥傾瀉和40宗水浸。其中新界北部的水浸最為嚴重。在錦田附近的大江埔村，水深曾達一米。另外，呈祥道附近發生的一宗嚴重山泥傾瀉引致該處道路需要封閉達幾星期之久。

圖3.1.1及圖3.1.2分別是維克托的路徑圖和香港的雨量分佈，圖3.1.3則是維克托在深井附近登陸時本港的風向和風速。表3.1.1-3.1.3分別是當維克托影響香港時各站所錄得風、雨量及潮汐資料。

**3.1****Typhoon Victor (9712)****31 July - 3 August 1997**

Victor formed as a tropical depression over the South China Sea about 590 km south of Hong Kong on 31 July. Drifting slowly, it deepened into a tropical storm early the next morning and became a severe tropical storm in the evening. Picking up speed towards the north, Victor intensified further into a typhoon on the morning of 2 August, but weakened into a severe tropical storm just before reaching the south China coast. After making landfall over Hong Kong, Victor moved into Guangdong where it dissipated over land on 3 August. Victor took a heavy toll on Guangdong and Fujian, a total of 76 killing people and injuring more than 1 000. Over 85 000 houses were destroyed or damaged, the economic loss was put at US\$586.4 million.

In Macau apart from uprooted trees and collapsed scaffoldings, there was also flooding in low-lying areas. No injuries were reported.

In Hong Kong the Standby Signal No. 1 was hoisted at 2.00 p.m. on 31 July. Victor's outer circulation began to affect the coastal region the following day. Local winds started to strengthen from the east and there were squally showers, the Strong Wind Signal No.3 was hoisted at 10.00 a.m. Victor attained typhoon intensity on the morning of 2 August with an eye becoming discernible on satellite pictures. The No.8 NORTHEAST Gale or Storm Signal was hoisted at 12.00 noon. There were persistent gales offshore and seas also became very rough that afternoon.

With Victor continuing to approach the south China coast, the Increasing Gale or Storm Signal No.9 was hoisted at 4.50 p.m. This was the first time since 1983 that the No.9 signal was hoisted. Victor's centre passed only about 10 km to the west of the Hong Kong Observatory and weakened into a severe tropical storm at about 8 p.m. Its centre then crossed the Tsing Ma Bridge and landed near Sham Tseng. Winds over Hong Kong became cyclonic.

Winds turned to southwesterly as Victor moved to the north after making landfall. With Victor moving further away, the No.9 signal was replaced by the No.8 SOUTHWEST Gale or Storm Signal at 11.40 p.m. The No.8 signal was subsequently replaced by the Strong Wind Signal No.3 at 3.30 a.m. on 3 August as Victor weakened and local gales subsided. All tropical cyclone signals were lowered at 4.45 a.m. During the hoisting of signals, maximum gusts of over 135 km/h were recorded at Waglan Island and Cheung Chau, while those at King's Park and Star Ferry were 104 km/h and 115 km/h respectively. At 7.28 p.m. on 2 August, the Hong Kong Observatory also recorded the lowest instantaneous sea-level pressure of 973.0 hPa.

During Victor's passage, a man drowned in high seas near Stanley as he tried to rescue two people swept away by high waves. At least 3 cases of landslides, 20 cases of flooding, 7 cases of collapsed scaffoldings, 10 cases of fallen objects and 110 cases of toppled trees were reported in Hong Kong. Altogether about 58 people were injured in various storm related accidents. The stormy weather also caused disruption to traffic, and it was for the first time that both the upper and lower decks of the Tsing Ma Bridge, opened earlier in the year, had to be closed in a tropical cyclone situation.

Victor's outer rainbands continued to bring heavy downpours to Hong Kong on 3 August. About 14 cases of landslides and 40 cases of flooding were reported. Flooding was most serious in the northern New Territories with flood water as deep as one metre in Tai Kong Po village near Kam Tin. There was also a serious landslide near Ching Cheung Road, rendering the road totally impassable for a few weeks.

Figure 3.1.1 and Figure 3.1.2 show respectively the track of Victor and the rainfall distribution in Hong Kong. Winds over Hong Kong when Victor made landfall near Sham Tseng are shown in Figure 3.1.3. Information on wind, rainfall and tide during the passage of Victor is given in Tables 3.1.1 - 3.1.3.

表 3.1.1 受熱帶氣旋維克托影響下，本港各站在熱帶氣旋警告信號懸掛時所錄得的最  
高陣風、最高每小時平均風速及風向

Table 3.1.1 Maximum gust peak speeds and maximum hourly mean winds with associated wind directions recorded at various stations during the hoisting of tropical cyclone warning signals for Victor

站 Station	(參閱圖 1.1) (see Fig. 1.1)	最高陣風 Maximum Gust				最高每小時平均風速 Maximum Hourly Wind					
		風向 Direction	風速(公里/時) Speed (km/h)	日期/月份 Date/Month	時間 Time	風向 Direction	風速(公里/時) Speed (km/h)	日期/月份 Date/Month	時間 Time		
中環	Central	東	E	88	2/8	1930	東	E	45	2/8	2000
中環廣場	Central Plaza	東南	SE	139	2/8	1941	東南	SE	70	2/8	2000
赤鱗角	Chek Lap Kok	西	W	92	2/8	2059	西北偏西	WNW	59	2/8	2100
長洲	Cheung Chau	西南偏西	WSW	139	2/8	2141	西南	SW	77	2/8	2300
長沙灣	Cheung Sha Wan	東北偏東	ENE	96	2/8	1110	西南偏南	SSW	52	2/8	2300
青洲	Green Island	西南偏南	SSW	137	2/8	2220	南	S	101	2/8	2300
啟德機場	Kai Tak Airport (SE)	西南偏南	SSW	106	2/8	2332	東南偏南	SSE	59	2/8	2000
京士柏	King's Park	西南	SW	104	2/8	2214	西南偏南	SSW	49	2/8	2300
流浮山	Lau Fau Shan	南	S	112	2/8	2234	南	S	72	2/8	2300
平洲	Ping Chau	東	E	106	2/8	1809	東南偏東	ESE	45	2/8	2000
沙螺灣	Sha Lo Wan	西南偏南	SSW	110	2/8	2212	西南偏南	SSW	65	2/8	2300
		西南偏南	SSW	110	2/8	2215					
		西南偏南	SSW	110	2/8	2225					
沙田	Sha Tin	西南偏南	SSW	99	2/8	2329	西南偏南	SSW	49	2/8	2300
天星碼頭	Star Ferry	西	W	115	2/8	2340	東	E	58	2/8	2000
打鼓嶺	Ta Kwu Ling	東北	NE	104	2/8	1826	東北	NE	49	2/8	1900
大尾篤	Tai Mei Tuk	東北偏東	ENE	140	2/8	1821	東北偏東	ENE	94	2/8	1800
大帽山	Tai Mo Shan	東	E	151	2/8	2006	東	E	92	2/8	1800
大埔滘	Tai Po Kau	東	E	121	2/8	2013	東北偏東	ENE	65	2/8	1900
塔門	Tap Mun	東	E	124	2/8	1804	東南偏東	ESE	72	2/8	2000
大老山	Tate's Cairn	東	E	151	2/8	1009	東南偏東	ESE	92	2/8	1800
將軍澳	Tseung Kwan O	西南偏南	SSW	106	2/8	2158	西南偏南	SSW	45	2/8	2300
青衣	Tsing Yi	西南偏南	SSW	128	2/8	2209	東	E	54	2/8	2000
屯門	Tuen Mun	南	S	90	2/8	2246	西南偏南	SSW	31	2/8	2300
橫瀾島	Waglan Island	西南	SW	137	2/8	2113	西南	SW	110	2/8	2200
黃竹坑	Wong Chuk Hang	東北偏東	ENE	106	2/8	1601	東北偏東	ENE	41	2/8	1600

下列各站並未能提供數據：

Data not available at the following stations:

西貢 Sai Kung  
鯉魚湖 Tsak Yue Wu  
石崗 Shek Kong

表 3.1.2 熱帶氣旋維克托影響香港期間，香港天文台及其他各站所錄得的日雨量(單位為毫米)

Table 3.1.2 Daily rainfall amounts in millimetres recorded at the Hong Kong Observatory and other stations during the passage of Victor

站 (參閱圖3.1.2) <u>Station</u> (see figure 3.1.2)	七月三十一日 <u>31 Jul</u>	八月一日 <u>1 Aug</u>	八月二日 <u>2 Aug</u>	八月三日 <u>3 Aug</u>	總雨量 <u>Total</u>
香港天文台 Hong Kong Observatory	3.5	39.5	148.4	50.2	241.6
H19 筲箕灣 Shau Kei Wan	4.0	28.0	152.0	76.0	260.0
H13 半山區 Mid-levels	5.0	31.5	187.0	62.5	286.0
H21 淺水灣 Repulse Bay	15.5	22.0	159.0	64.0	260.5
K04 飛鵝山 Fei Ngo Shan	10.5	58.0	160.5	43.0	272.0
K06 長沙灣 Cheung Sheung Wan	9.0	48.0	168.0	63.0	288.0
N17 東涌 Tung Chung	15.5	15.0	216.0	57.5	304.0
N13 糧船灣 Hing Island	3.0	36.5	90.0	59.0	188.5
N09 沙田 Sha Tin	3.5	43.5	199.0	60.5	306.5
N05 粉嶺 Fanling	0.5	30.0	127.0	84.0	241.5
R31 大尾督 Tai Mei Tuk	2.5	[ 19.0 ]	109.5	28.0	[ 159.0 ]
N06 葵涌 Kwai Chung	19.0	53.0	200.0	59.0	331.0
R21 踏石角 Tap Shek Kok	5.0	21.5	156.5	40.0	223.0
N12 元朗 Yuen Long	0.5	19.5	202.0	49.5	271.5

註： [ ] 基於不完整的每小時雨量數據。

Note: [ ] based on incomplete hourly data.

表 3.1.3 熱帶氣旋維克托影響香港期間，香港各潮汐站所錄得的最高潮位及最大風暴潮  
Table 3.1.3 Times and heights of the maximum sea level and the maximum storm surge recorded at various tide stations in Hong Kong during the passage of Victor

站(參閱圖1.1) Station (see Fig. 1.1)	最高潮位 (海圖基準面以上) Maximum sea level (above chart datum)			最大風暴潮 (天文潮高度以上) Maximum storm surge (above astronomical tide)		
	高度 (米) Height (m)	日期/月份 Date/Month	時間 Time	高度 (米) Height (m)	日期/月份 Date/Month	時間 Time
樂安排 Lok On Pai	2.75	2/8	9.03 a.m.	0.70	2/8	5.34 p.m.
鯽魚涌 Quarry Bay	2.76	2/8	9.24 a.m.	1.01	2/8	5.57 p.m.
大澳 Tai O	2.73	2/8	8.10 a.m.	0.76	2/8	5.23 p.m.
尖鼻咀 Tsim Bei Tsui	3.13	2/8	8.34 a.m.	1.13	2/8	11.21 p.m.
橫瀾島 Waglan Island	2.77	2/8	8.16 a.m.	0.93	2/8	6.16 p.m.

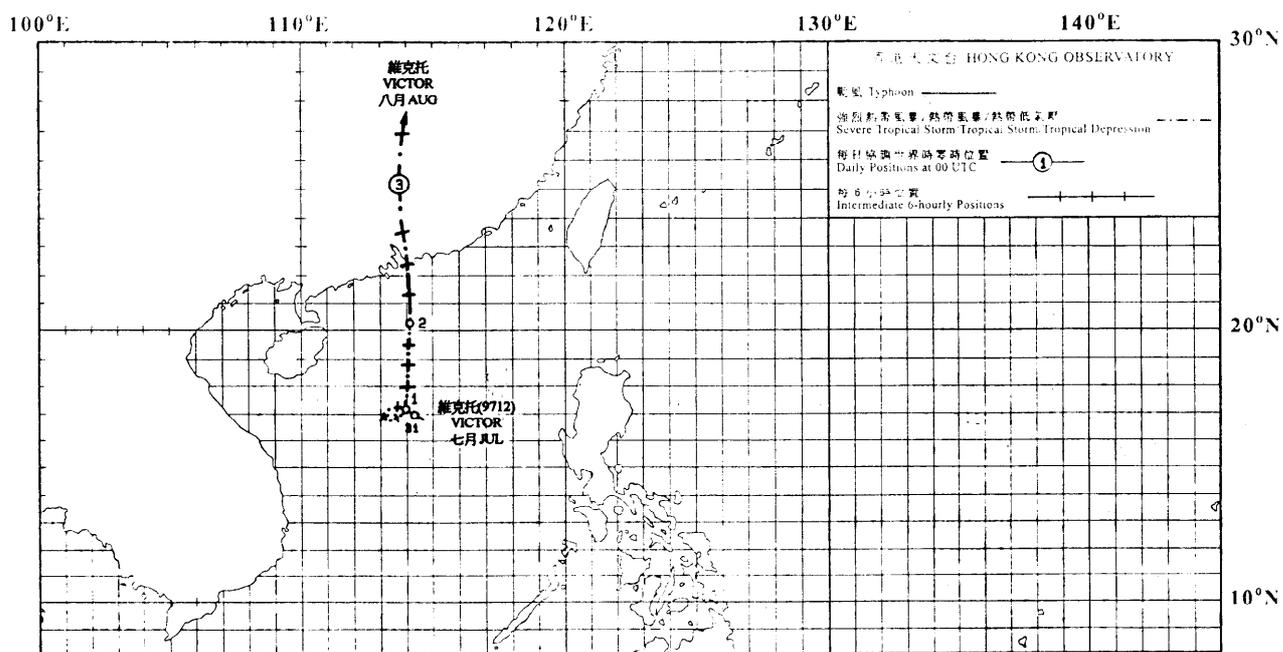


圖 3.1.1 一九九七年七月三十一日至八月三日颱風維克托 (9712) 的路徑圖。  
 Figure 3.1.1 Track of Typhoon Victor (9712) : 31 July - 3 August 1997.

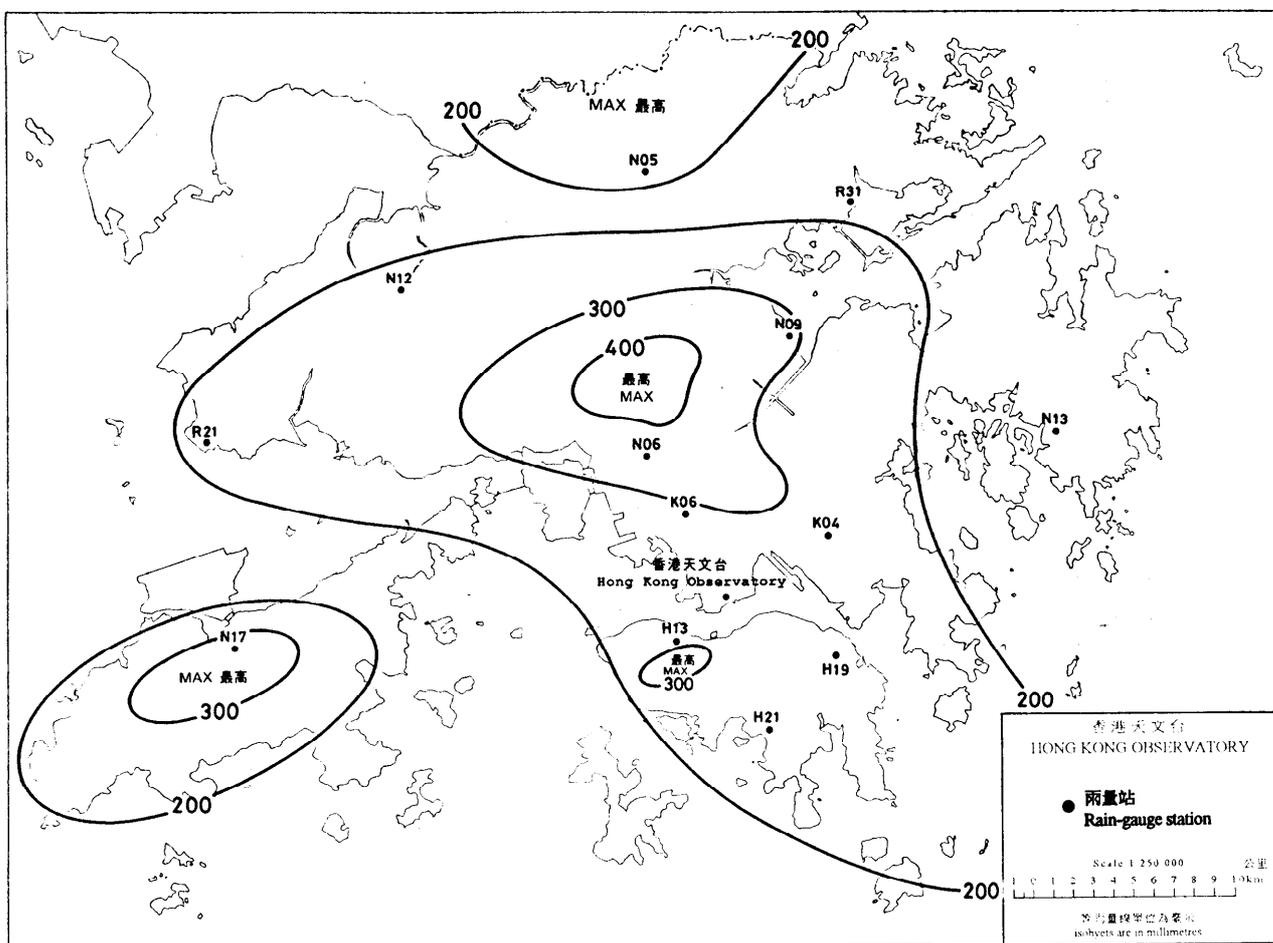


圖 3.1.2 一九九七年七月三十一日至八月三日的雨量分佈圖。  
 Figure 3.1.2 Rainfall distribution on 31 July - 3 August 1997.

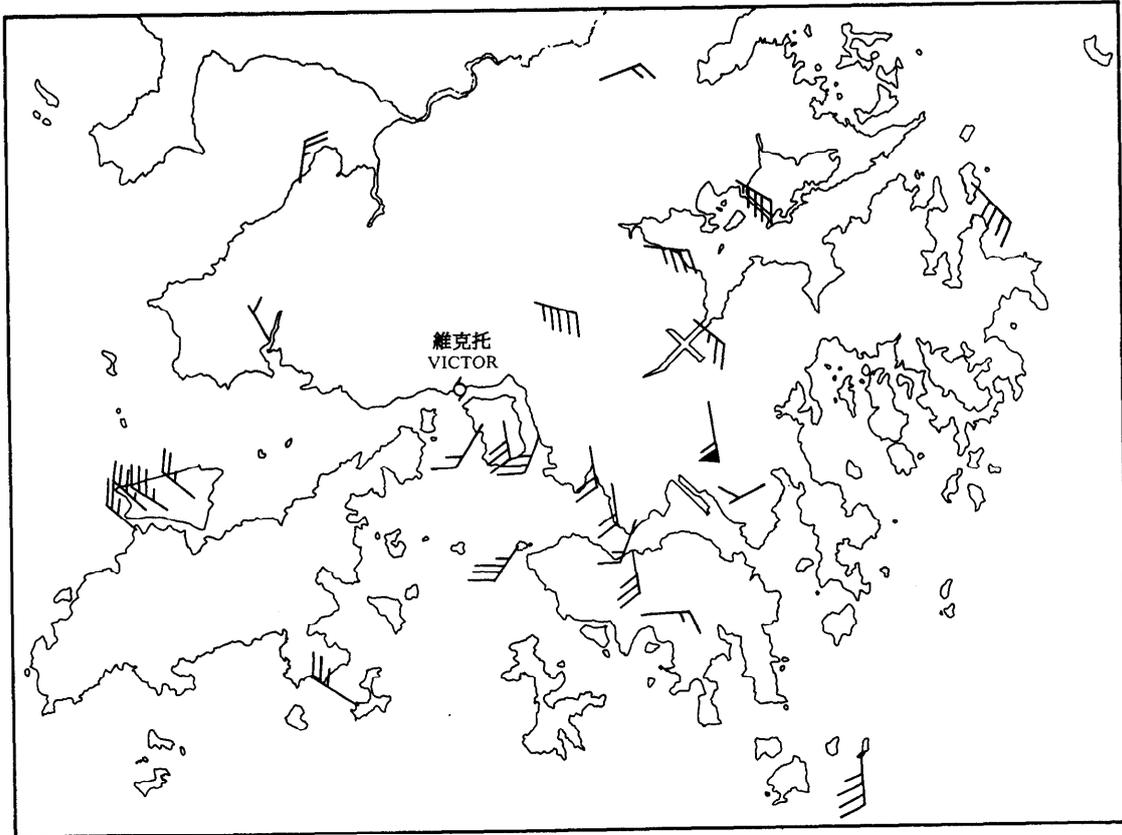


圖 3.1.3 一九九七年八月二日晚上維克托在深井附近登陸時香港的風向和風速。

Figure 3.1.3 Winds over Hong Kong when Victor was making landfall near Sham Tseng during the evening on 2 August 1997.

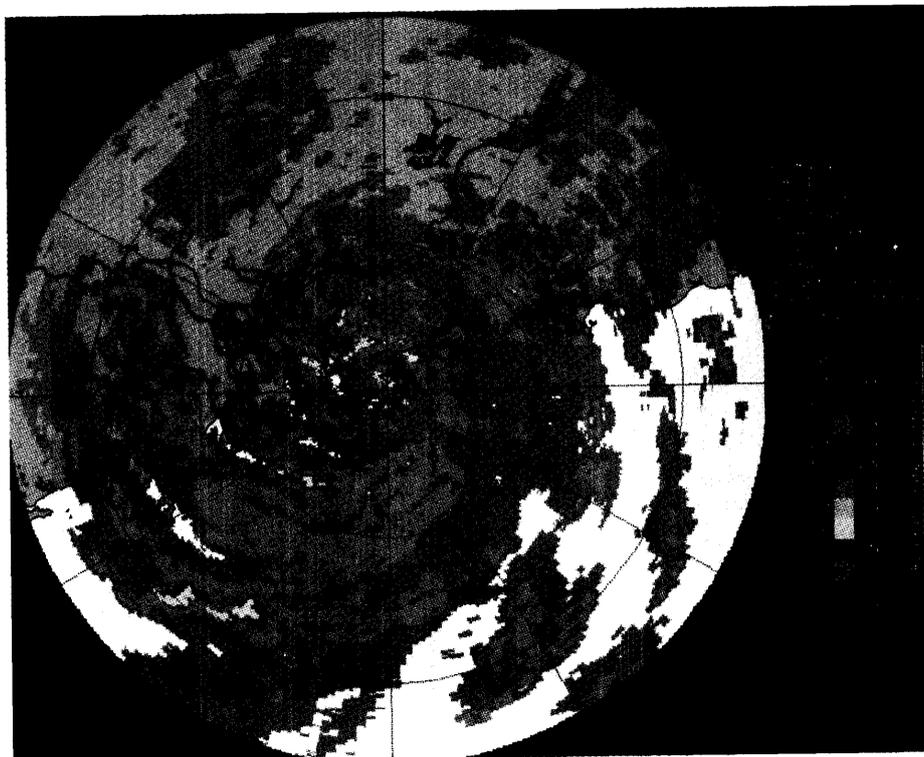


圖 3.1.4 一九九七年八月二日下午8時的雷達回波圖像。

Figure 3.1.4 Radar echoes captured at 8 p.m. on 2 August 1997.

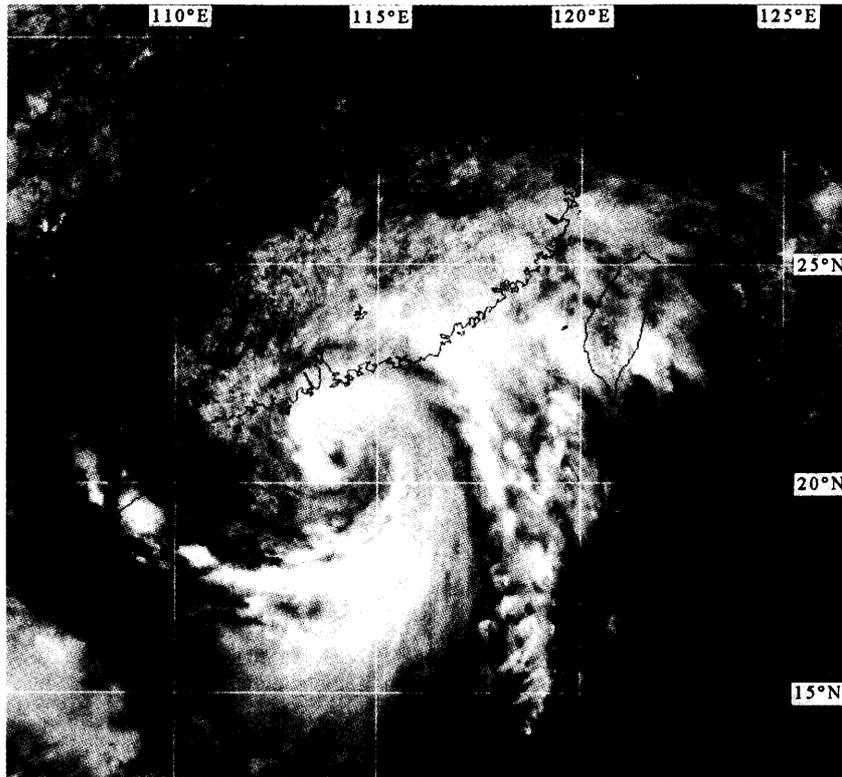


圖 3.1.5 一九九七年八月二日約上午11時維克托的可見光衛星圖片  
 (此衛星雲圖接收自日本氣象廳的地球同步氣象衛星 (GMS-5) )。

Figure 3.1.5 Visible imagery of Victor at around 11 a.m. on 2 August 1997  
 (originally captured by GMS-5 of JMA).

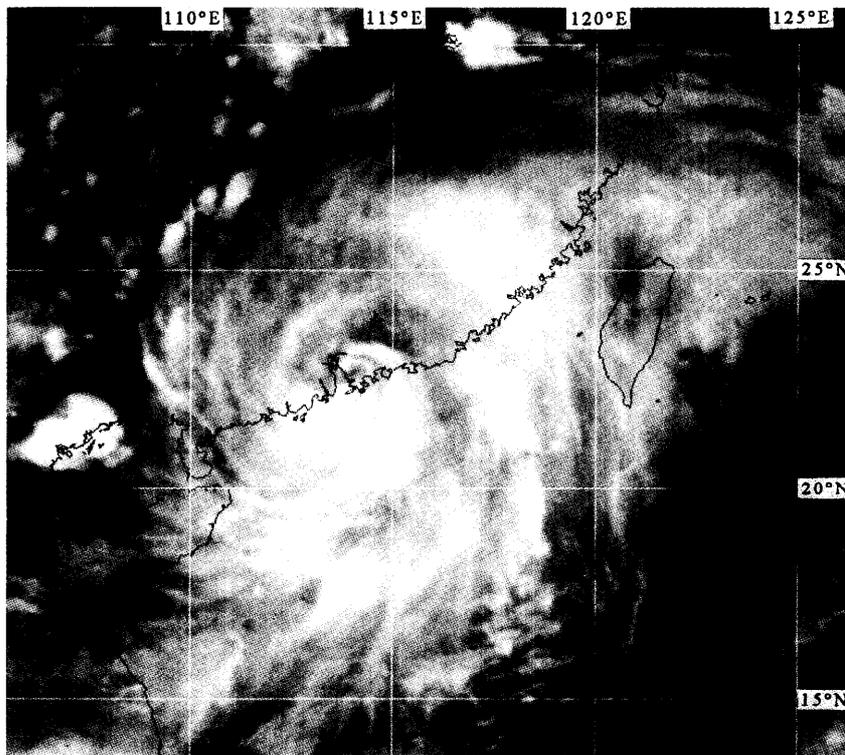


圖 3.1.6 一九九七年八月二日約下午8時維克托的紅外線衛星圖片  
 (此衛星雲圖接收自日本氣象廳的地球同步氣象衛星 (GMS-5) )。

Figure 3.1.6 Infra-red imagery of Victor at around 8 p.m. on 2 August 1997  
 (originally captured by GMS-5 of JMA).

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圖 3.1.7 位於香港仔海事處分處的信號站正在懸掛九號熱帶氣旋警告信號（明報提供）。

Figure 3.1.7 No. 9 tropical cyclone warning signal hoisted at a signal station located in the Aberdeen Marine Office (by courtesy of Ming Pao).

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圖 3.1.8 青山公路一輛隸屬警察交通總部的汽車被塌下大樹壓中（東方日報提供）。

Figure 3.1.8 A vehicle of Police Traffic Branch Headquarters hit by a toppled tree on Castle Peak Road (by courtesy of Oriental Daily News).

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Figure 3.1.9 A taxi parked on Yee Shing Lane in Chai Wan hit by a collapsed advertisement signboard (by courtesy of Sing Tao Daily).

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圖 3.1.10 牛頭角淘大花園竹棚塌下並壓毀幾輛停泊的私家車（文匯報提供）。

Figure 3.1.10 Cars parked in Amoy Gardens in Ngau Tau Kok hit by a collapsed scaffolding (by courtesy of Wen Wei Po).

## 3.2

## 颱風思蒂(9715)

八月二十日至二十三日

一個低壓區於八月二十日晚在香港800公里警戒範圍內增強成一熱帶低氣壓並命名為思蒂。它向西北偏西方向移動，在翌日早上迅速發展成一熱帶風暴，並在當天下午增強成強烈熱帶風暴。思蒂橫越南海北部而且在八月二十二日達到颱風強度。其後，它經過雷州半島造成破壞。在中國共有46人死亡及541人受傷。經濟損失約共7.502億美元。思蒂接著橫過北部灣在越南北部登陸。它於八月二十三日在陸地上消散。

在本港，一號戒備信號在八月二十日晚上11時正懸掛。當時思蒂正在香港東南面約470公里。受到思蒂外圍環流影響，本地東北風開始加強，在離岸地區尤其明顯。三號強風信號於翌日早上11時45分懸掛。隨著思蒂進一步接近香港，狂風驟雨變得頻密，而風向亦漸轉偏東。思蒂在當天下午約5時在香港以南約240公里掠過，而最低每小時海平面氣壓999.0百帕斯卡亦同時在天文台錄得。思蒂稍後直趨廣東西部沿岸。由於思蒂的逐漸遠離，天文台於八月二十二日早上9時45分除下所有風球。

思蒂影響香港期間，在新蒲崗有兩人被高空墮物擊傷。在深水埗一貨柜場，強風中一輛貨車被一貨柜擊中損毀，幸而司機只受輕傷。此外，半山區梅道、淺水灣、和柴灣均有棚架倒塌報告，在上述意外中並無人受傷。

思蒂的外圍雨帶在八月二十二日繼續為本港帶來狂風驟雨及雷暴。當天下午12時20分，天文台需要發出紅色暴雨警告。下午1時10分至4時正更需要發出黑色暴雨警告。在暴雨期間，天文台在正午12時至下午1時錄得的雨量高達68.0毫米。

大雨為香港各區帶來最少80宗水浸和19宗山泥傾瀉。有約一半水浸發生在香港島。九龍市區及新界北部包括元朗、錦田、八鄉亦受水浸波及。在市區，旺角出現嚴重水浸，水深及膝，交通因而大受影響，很多商舖和食肆一度要暫停營業。

圖3.2.1及圖3.2.2分別是思蒂的路徑圖和香港的雨量分佈，而圖3.2.3是天文台氣象雷達在八月二十二日約12時30分所錄得的回波圖像，圖3.2.4則給出當日天文台的每小時雨量分佈。表3.2.1-3.2.3分別是當思蒂影響香港時各站所錄得風、雨量及潮汐資料。

**3.2****Typhoon Zita (9715)****20 - 23 August 1997**

An area of low pressure intensified into a tropical depression named Zita within 800 km of Hong Kong on the late evening of 20 August. Zita tracked west-northwestwards across the northern part of the South China Sea, intensifying rapidly into a tropical storm the next morning and then a severe tropical storm in the afternoon. Attaining typhoon strength on 22 August, Zita rampaged through Leizhou. In China, a total of 46 people were killed and 541 injured. The economic loss was estimated at US\$750.2 million. Zita went on to traverse Beibu Wan and made landfall over northern Vietnam. It dissipated over land on 23 August.

In Hong Kong the Standby Signal No. 1 was hoisted at 11.00 p.m. on 20 August when Zita was about 470 km to the southeast. Under the influence of its outer circulation, northeasterly winds increased gradually in particular over the offshore areas. The Strong Wind Signal No.3 was hoisted at 11.45 a.m. on 21 August. Squally showers became more frequent and winds also turned easterly as Zita came nearer Hong Kong. Zita reached its closest approach at around 5 p.m. that evening when it was about 240 km to the south. At the same time, the lowest hourly sea-level pressure of 999.0 hPa was recorded at the Hong Kong Observatory. Zita then moved away, heading towards the coast of western Guangdong. All tropical cyclone signals were lowered at 9.45 a.m. on 22 August.

During passage of Zita, two people were injured by fallen objects in San Po Kong. In a cargo bay in Sham Shui Po, a container truck operating in strong winds was hit by a steel container. Fortunately the driver inside was only slightly injured. There were also reports of collapsed scaffoldings on May Road in Mid-levels, Repulse Bay and Chai Wan. Nobody was injured in these incidents.

Zita's outer rainbands continued to bring intense squally showers and thunderstorms to Hong Kong on 22 August. The Rainstorm RED Warning was issued at 12.20 p.m. that afternoon. It was replaced by the Rainstorm BLACK Warning at 1.10 p.m. and it remained in force until 4.00 p.m. During this rainstorm episode, the Hong Kong Observatory recorded the highest hourly rainfall of 68.0 millimetres between 12.00 noon and 1.00 p.m.

The heavy rain brought more than 80 cases of flooding and 19 cases of landslides to various parts of Hong Kong. About half of the flooding incidents occurred on Hong Kong Island. Urban Kowloon and the northern New Territories, including Yuen Long, Kam Tin and Pat Heung, were also seriously affected by floods. In the urban areas, Mongkok was amongst the most affected district where knee-deep flood water caused traffic chaos and forced many shops and restaurants to close.

Figure 3.2.1 and Figure 3.2.2 show respectively the track of Zita and the rainfall distribution in Hong Kong. Figure 3.2.3 is the distribution of hourly rainfall recorded at the Observatory Headquarters on 22 August and Figure 3.2.4 shows the echoes captured by the Hong Kong Observatory's weather radar at around 12.30 p.m. on the same day. Information on wind, rainfall and tide during the passage of Zita is given in Tables 3.2.1 - 3.2.3.

表 3.2.1 受熱帶氣旋思蒂影響下，本港各站在熱帶氣旋警告信號懸掛時所錄得的最高陣風、最高每小時平均風速及風向

Table 3.2.1 Maximum gust peak speeds and maximum hourly mean winds with associated wind directions recorded at various stations during the hoisting of tropical cyclone warning signals for Zita

站 Station	(參閱附圖 1.1) (see Fig. 1.1)	最高陣風 Maximum Gust				最高每小時平均風速 Maximum Hourly Wind					
		風向 Direction	風速(公里/時) Speed (km/h)	日期/月份 Date/Month	時間 Time	風向 Direction	風速(公里/時) Speed (km/h)	日期/月份 Date/Month	時間 Time		
中環	Central	東	E	68	21/8	2105	東	E	36	21/8	1600
中環廣場	Central Plaza	東	E	110	22/8	0338	東北	NE	67	21/8	1400
赤鱗角	Chek Lap Kok	東	E	79	22/8	0231	東	E	41	22/8	0900
長洲	Cheung Chau	東南偏東	ESE	115	21/8	2304	東南偏東	ESE	70	22/8	0900
長沙灣	Cheung Sha Wan	東北偏東	ENE	88	21/8	2223	東北偏東	ENE	31	21/8	2100
青洲	Green Island	東北偏東	ENE	112	21/8	1648	東北	NE	70	21/8	1200
啟德機場	Kai Tak Airport (SE)	東	E	85	21/8	1606	東北偏東	ENE	36	21/8	1200
							東	E	36	22/8	0300
							東	E	36	22/8	0500
							東	E	36	22/8	0600
							東	E	36	22/8	0700
							東	E	36	22/8	0800
京士柏	King's Park	東	E	87	21/8	1156	東北偏東	ENE	36	21/8	1200
流浮山	Lau Fau Shan	東北	NE	76	21/8	1420	東北	NE	36	21/8	1600
		東北	NE	76	21/8	1425					
平洲	Ping Chau	東	E	68	21/8	1344	東	E	31	21/8	1700
		東	E	68	21/8	1818					
西貢	Sai Kung	東南偏東	ESE	96	22/8	0837	東北偏東	ENE	45	21/8	2100
沙螺灣	Sha Lo Wan	東北偏東	ENE	104	22/8	0636	東北偏東	ENE	56	21/8	2200
沙田	Sha Tin	東北偏東	ENE	76	21/8	1925	東北偏東	ENE	23	22/8	0100
石崗	Shek Kong	東北	NE	76	21/8	1620	東	E	31	22/8	0100
天星碼頭	Star Ferry	東	E	87	21/8	2308	東	E	43	22/8	0100
打鼓嶼	Ta Kwu Ling	東	E	77	22/8	0832	東北偏東	ENE	31	21/8	2100
大尾篤	Tai Mei Tuk	東北偏東	ENE	101	21/8	1311	東北偏東	ENE	63	21/8	1400
大埔滘	Tai Po Kau	東北	NE	85	22/8	0332	東北偏北	NNE	47	21/8	2100
塔門	Tap Mun	東	E	79	22/8	0835	東	E	47	21/8	1400
		東	E	79	22/8	0836					
大老山	Tate's Cairn	東北偏東	ENE	124	21/8	1527	東	E	75	21/8	1600
鯽魚湖	Tsak Yue Wu	東北偏東	ENE	62	21/8	1254	東北偏東	ENE	20	21/8	1300
將軍澳	Tseung Kwan O	東北偏北	NNE	77	21/8	1229	東北偏北	NNE	25	21/8	1200
							東北偏北	NNE	25	21/8	1300
青衣	Tsing Yi	東北偏東	ENE	103	22/8	0211	東南偏東	ESE	51	22/8	0900
屯門	Tuen Mun	東南偏南	SSE	59	22/8	0603	東南偏南	SSE	19	22/8	0900
		東南偏南	SSE	59	22/8	0841					
橫瀾島	Waglan Island	東	E	112	21/8	1537	東北偏東	ENE	83	21/8	1300
黃竹坑	Wong Chuk Hang	東南偏東	ESE	99	21/8	2339	東	E	36	22/8	0400

下列站並未能提供數據：

Data not available at the following station:

大帽山 Tai Mo Shan

表 3.2.2 熱帶氣旋思蒂影響香港期間，香港天文台及其他各站所錄得的日雨量(單位為毫米)

Table 3.2.2 Daily rainfall amounts in millimetres recorded at the Hong Kong Observatory and other stations during the passage of Zita

站 (參閱圖3.2.2) Station (see figure 3.2.2)	八月二十日 20 Aug	八月二十一日 21 Aug	八月二十二日 22 Aug	總雨量 Total
香港天文台 Hong Kong Observatory	2.2	38.7	199.7	240.6
H19 筲箕灣 Shau Kei Wan	19.5	33.0	184.0	236.5
H13 半山區 Mid-levels	1.0	40.0	180.0	221.0
H21 淺水灣 Repulse Bay	16.0	33.5	174.5	224.0
K04 飛鵝山 Fei Ngo Shan	10.5	53.0	110.5	174.0
K06 長沙灣 Cheung Sheung Wan	1.0	38.0	221.0	260.0
N17 東涌 Tung Chung	0.0	26.0	38.0	64.0
N13 糧船灣 Hing Island	23.5	23.0	88.0	134.5
N09 沙田 Sha Tin	13.0	46.0	130.5	189.5
N05 粉嶺 Fanling	1.5	13.0	163.5	178.0
R31 大尾督 Tai Mei Tuk	9.5	[ 11.5 ]	103.5	[ 124.5 ]
N06 葵涌 Kwai Chung	5.5	50.5	223.0	279.0
R21 踏石角 Tap Shek Kok	0.0	[ 12.5 ]	64.5	[ 77.0 ]
N12 元朗 Yuen Long	0.5	41.5	136.0	178.0

註： [ ] 基於不完整的每小時雨量數據。

Note: [ ] based on incomplete hourly data.

表 3.2.3 熱帶氣旋思蒂影響香港期間，香港各潮汐站所錄得的最高潮位及最大風暴潮

Table 3.2.3 Times and heights of the maximum sea level and the maximum storm surge recorded at various tide stations in Hong Kong during the passage of Zita

站(參閱圖1.1) Station (see Fig. 1.1)	最高潮位 (海圖基準面以上) Maximum sea level (above chart datum)			最大風暴潮 (天文潮高度以上) Maximum storm surge (above astronomical tide)		
	高度 (米) Height (m)	日期/月份 Date/Month	時間 Time	高度 (米) Height (m)	日期/月份 Date/Month	時間 Time
樂安排 Lok On Pai	2.62	21/8	12.19 p.m.	0.51	22/8	12.42 a.m.
鯪魚涌 Quarry Bay	2.64	21/8	11.50 a.m.	0.62	21/8	3.11 p.m.
大澳 Tai O	2.58	21/8	11.35 a.m.	0.47	22/8	12.59 a.m.
橫瀾島 Waglan Island	2.67	21/8	11.36 a.m.	0.59	21/8	3.10 p.m.

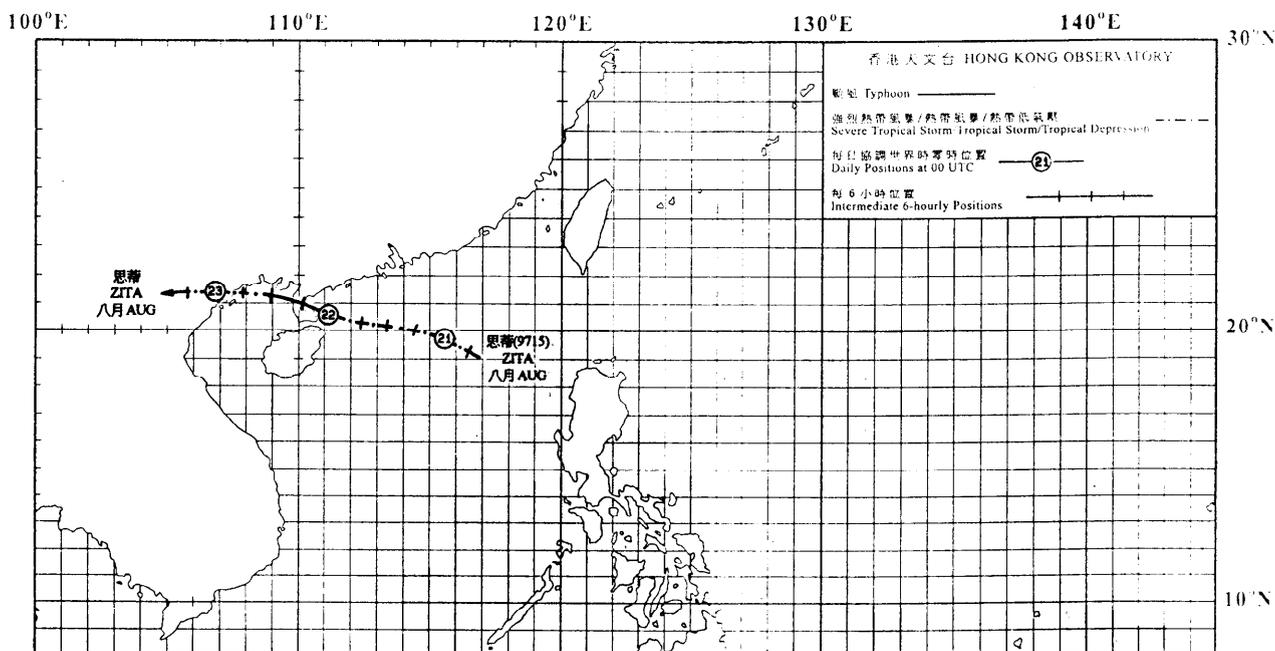


圖 3.2.1 一九九七年八月二十日至二十三日颱風思蒂 (9715) 的路徑圖。  
Figure 3.2.1 Track of Typhoon Zita (9715) : 20 - 23 August 1997.

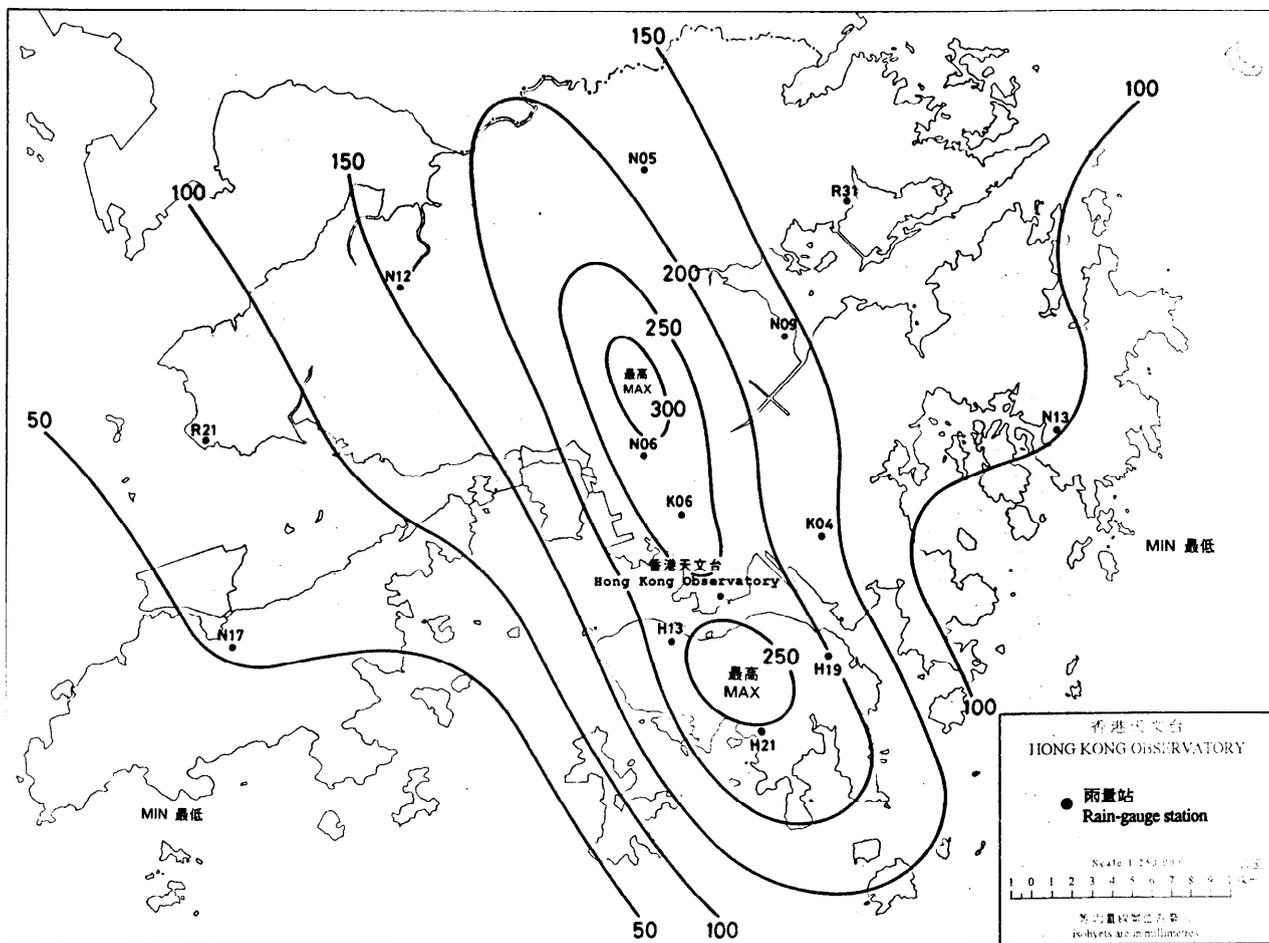


圖 3.2.2 一九九七年八月二十日至二十二日的雨量分佈圖。  
Figure 3.2.2 Rainfall distribution on 20 - 22 August 1997.

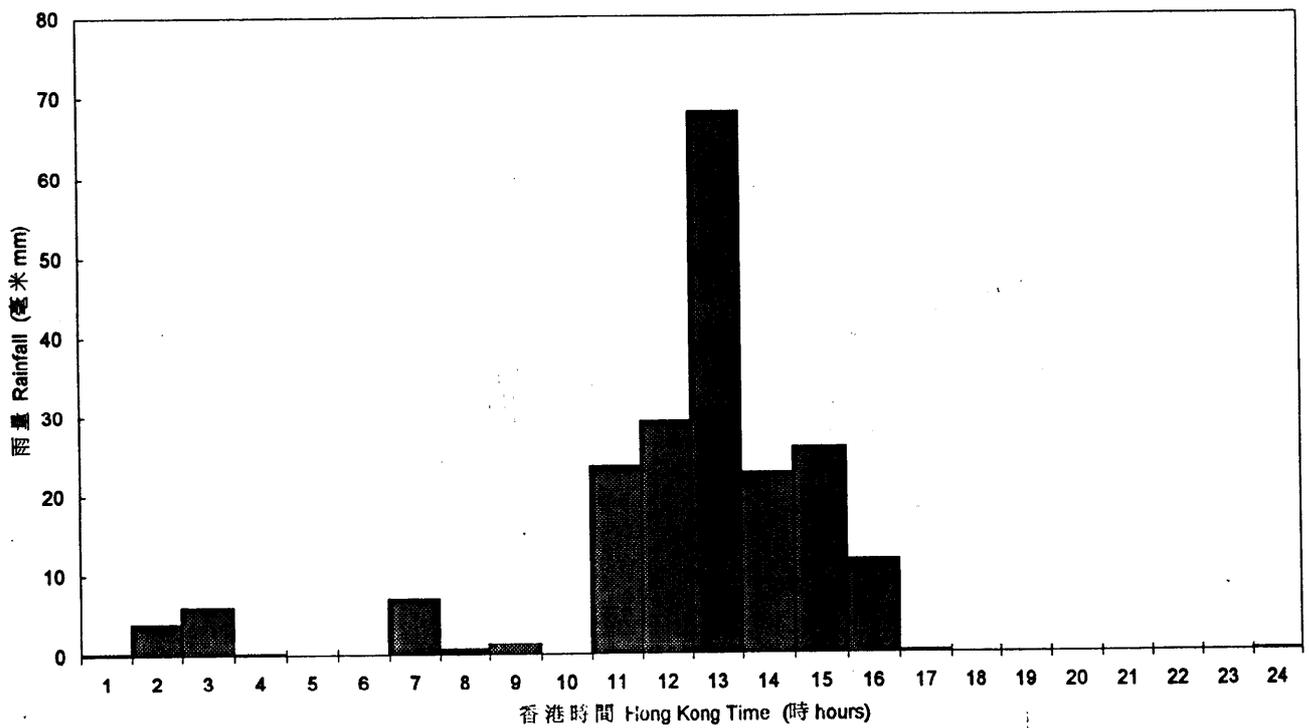


圖 3.2.3 一九九七年八月二十二日在天文台總部錄得的每小時雨量分佈情況。

Figure 3.2.3 Distribution of hourly rainfall at the Hong Kong Observatory Headquarters on 22 August 1997.

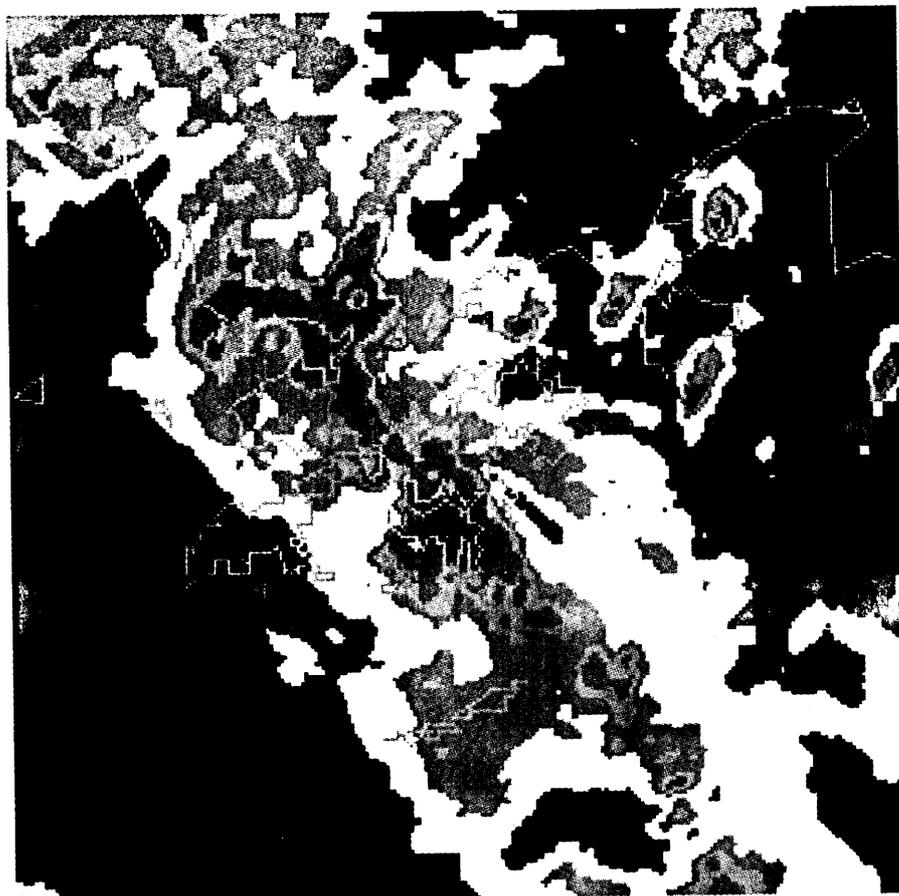


圖 3.2.4 一九九七年八月二十二日下午12時30分的雷達回波圖像。

Figure 3.2.4 Radar echoes captured at around 12.30 p.m. on 22 August 1997.

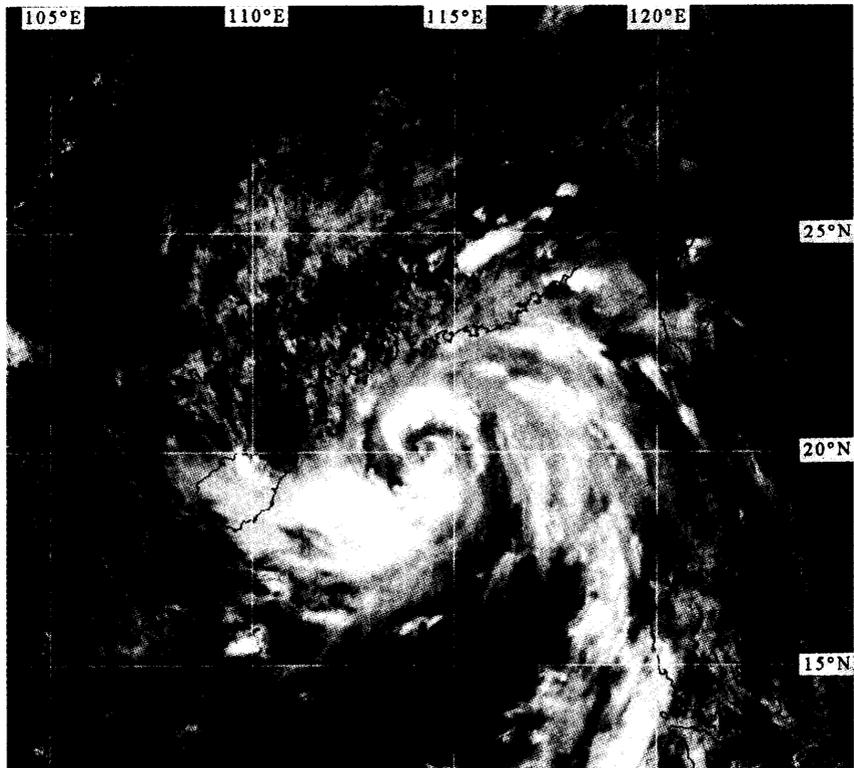


圖 3.2.5 一九九七年八月二十一日約下午2時思蒂的可見光衛星圖片  
 (此衛星雲圖接收自日本氣象廳的地球同步氣象衛星 (GMS-5))。

Figure 3.2.5 Visible imagery of Zita at around 2 p.m. on 21 August 1997  
 (originally captured by GMS-5 of JMA).

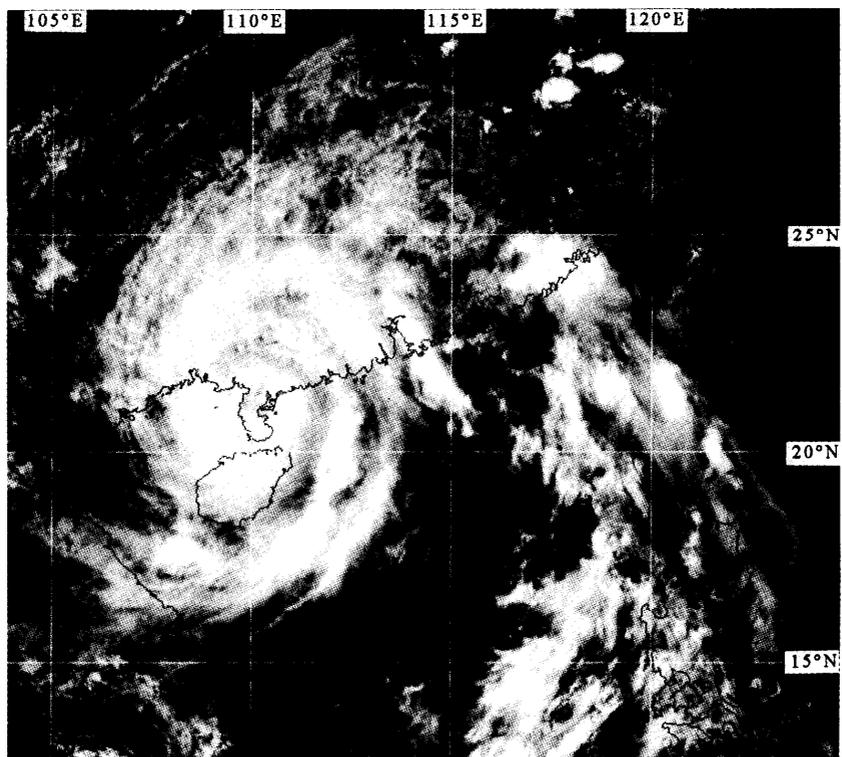


圖 3.2.6 一九九七年八月二十二日約下午2時思蒂的可見光衛星圖片  
 (此衛星雲圖接收自日本氣象廳的地球同步氣象衛星 (GMS-5))。

Figure 3.2.6 Visible imagery of Zita at around 2 p.m. on 22 August 1997  
 (originally captured by GMS-5 of JMA).

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圖 3.2.7 彌敦道太子地鐵站外水浸（東方日報提供）。

Figure 3.2.7 Flooding outside the entry of Prince Edward Mass Transit Railway Station on Nathan Road (by courtesy of Oriental Daily News).

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圖 3.2.8 新界八鄉一間石屋被沖致翻倒河中（文匯報提供）。

Figure 3.2.8 A concrete house collapsed into river in Pat Heung, New Territories (by courtesy of Wen Wei Po).

## 第四節

### 熱帶氣旋統計表

#### Section 4

# TROPICAL CYCLONE STATISTICS AND TABLES

表4.1是一九九七年在北太平洋西部及南海區域(即由赤道至北緯45度、東經100度至180度所包括的範圍)的熱帶氣旋一覽。表內所給出的日期只說明某熱帶氣旋在上述範圍內出現的時間,因而不一定包括整個風暴過程。這個限制對表內其他元素亦同樣適用。

表4.2是天文台在一九九七年為船舶發出的熱帶氣旋警告的次數、時段、首個及末個警告發出的時間。當有熱帶氣旋位於香港責任範圍內時(即由北緯10至30度、東經105至125度所包括的範圍),天文台會發出這些警告。表內使用的時間為協調世界時。

表4.3是一九九七年熱帶氣旋警告信號發出的次數及其時段的摘要。表內亦提供每次熱帶氣旋警告信號懸掛或除下的時間和發出警報的次數。表內使用的時間為香港時間。

表4.4是一九五六至一九九七年間熱帶氣旋警告信號發出的次數及其時段的摘要。

表4.5是一九五六至一九九七年間每年位於香港責任範圍內以及每年需要天文台懸掛熱帶氣旋警告信號的熱帶氣旋總數。

表4.6是一九五六至一九九七年間天文台懸掛各種熱帶氣旋警告信號的最長、最短及平均時段。

表4.7是一九九七年當熱帶氣旋影響香港時本港的氣象觀測摘要。資料包括熱帶氣旋最接近香港時的位置及時間和當時估計熱帶氣旋中心附近的最低氣壓、京士柏及橫瀾島錄得的最高風速、香港天文台錄得的最低平均海平面氣壓以及香港各潮汐測量站錄得的最大風暴潮(即實際水位高出潮汐表中預計的部分,單位為米)。

表4.8.1是一九九七年位於香港600公里範圍內的熱帶氣旋及其為香港所帶來的雨量。

表4.8.2是一八八四至一九三九年以及一九四七至一九九七年間十個為香港帶來最多雨量的熱帶氣旋和有關的雨量資料。

表4.9是自一九四六年以來,天文台懸掛十號颶風信號時所錄得的氣象資料。內容包括熱帶氣旋吹襲香港時的最近距離及方位、天文台錄得的最低海平面氣壓、香港各站錄得的最高60分鐘平均風速和最高陣風。

表4.10是一九九七年熱帶氣旋在香港所造成的損失。資料參考了各政府部門和公共事業機構所提供的報告及本地報章的報導。

表4.11是過去30年來熱帶氣旋在香港所造成的人命傷亡及破壞。資料參考了各政府部門和公共事業機構所提供的報告及本地報章的報導。

TABLE 4.1 is a list of tropical cyclones in 1997 in the western North Pacific and the South China Sea (i.e. the area bounded by the Equator, 45°N, 100°E and 180°). The dates cited are the residence times of each tropical cyclone within the above-mentioned region and as such might not cover the full life-span. This limitation applies to all other elements in the table.

TABLE 4.2 gives the number of tropical cyclone warnings for shipping issued by the Hong Kong Observatory in 1997, the durations of these warnings and the times of issue of the first and last warnings for all tropical cyclones in Hong Kong's area of responsibility (i.e. the area bounded by 10°N, 30°N, 105°E and 125°E). Times are given in hours and minutes in UTC.

TABLE 4.3 presents a summary of the occasions/durations of the hoisting of tropical cyclone warning signals in 1997. The sequence of the signals displayed and the number of tropical cyclone warning bulletins issued for each tropical cyclone are also given. Times are given in hours and minutes in Hong Kong Time.

TABLE 4.4 presents a summary of the occasions/durations of the hoisting of tropical cyclone warning signals from 1956 to 1997 inclusive.

TABLE 4.5 gives the annual number of tropical cyclones in Hong Kong's area of responsibility between 1956 and 1997 and also the annual number of tropical cyclones necessitated the hoisting of tropical cyclone warning signals in Hong Kong.

TABLE 4.6 shows the maximum, mean and minimum durations of the tropical cyclone warning signals hoisted during the period 1956-1997.

TABLE 4.7 is a summary of meteorological information for each tropical cyclone affecting Hong Kong in 1997. Information on the nearest approach together with an estimate of the minimum central pressure of each tropical cyclone during its closest approach, the maximum winds at King's Park and Waglan Island, the minimum mean sea-level pressure recorded at the Hong Kong Observatory and the maximum storm surge (the excess, in metres, of the actual water level over that predicted in the Tide Tables) recorded at various tide stations in Hong Kong are included.

TABLE 4.8.1 tabulates the amount of rainfall associated with each tropical cyclone that came within 600 km of Hong Kong in 1997.

TABLE 4.8.2 highlights the 10 wettest tropical cyclones in Hong Kong for the period 1884-1939 and 1947-1997.

TABLE 4.9 provides some meteorological information for those typhoons requiring the hoisting of the Hurricane Signal No. 10 in Hong Kong since 1946. The information presented includes the distances and bearings of nearest approach, the minimum mean sea-level pressures recorded at the Hong Kong Observatory and the maximum 60-minute mean winds and maximum gust peak speeds recorded at some stations in Hong Kong.

TABLE 4.10 contains damage caused by tropical cyclones in 1997. The information is based on reports from various government departments, public utility companies and local newspapers.

TABLE 4.11 presents the casualties and damage figures associated with tropical cyclones in Hong Kong for the past 30 years. The information is based on reports from various government departments, public utility companies and local newspapers.

表 4.1 一九九七年在北太平洋西部及南海區域的熱帶氣旋一覽

TABLE 4.1 LIST OF TROPICAL CYCLONES IN THE WESTERN NORTH PACIFIC AND THE SOUTH CHINA SEA IN 1997

熱帶氣旋名稱	Name of tropical cyclone	編號 Code	路徑起點 Beginning of track		位置		路徑終點 End of track		位置		DISP: 消散 Dissipated / XT: 變為溫帶氣旋 Became Extratropical
			日期/月份 時間 <sup>+</sup> Date/Month Time <sup>+</sup>	日期/月份 時間 <sup>+</sup> Date/Month Time <sup>+</sup>	北緯 °N	東經 °E	日期/月份 時間 <sup>+</sup> Date/Month Time <sup>+</sup>	日期/月份 時間 <sup>+</sup> Date/Month Time <sup>+</sup>	北緯 °N	東經 °E	
熱帶低氣壓漢娜	Tropical Depression Hannah		19 / 1	1200	6.2	138.7	22 / 1	1200	11.6	133.8	DISP
颱風伊莎	Typhoon Isa	(9701)	12 / 4	0000	7.5	158.8	23 / 4	1200	30.0	150.3	XT
熱帶風暴占美	Tropical Storm Jimmy	(9702)	22 / 4	1800	13.5	155.1	25 / 4	1200	20.6	156.6	DISP
熱帶風暴姬莉	Tropical Storm Kelly	(9703)	7 / 5	0000	9.6	167.0	10 / 5	0600	14.1	163.5	DISP
熱帶風暴利維	Tropical Storm Levi	(9704)	25 / 5	1800	16.3	118.0	29 / 5	0600	25.2	128.4	XT
颱風曼莉	Typhoon Marie	(9705)	28 / 5	1200	13.3	158.1	2 / 6	0000	31.8	174.4	XT
颱風尼士達	Typhoon Nestor	(9706)	6 / 6	0000	10.0	156.7	14 / 6	0600	35.2	148.6	XT
颱風奧蓓	Typhoon Opal	(9707)	14 / 6	1200	14.1	133.8	20 / 6	1800	40.6	144.4	XT
颱風彼德	Typhoon Peter	(9708)	23 / 6	1200	13.6	130.8	28 / 6	1800	37.0	140.6	XT
颱風露絲	Typhoon Rosie	(9709)	19 / 7	0000	11.1	138.1	27 / 7	1800	36.0	133.3	DISP
熱帶風暴史葛	Tropical Storm Scott	(9710)	28 / 7	0600	23.6	155.6	1 / 8	1800	33.6	171.0	XT
颱風天娜	Typhoon Tina	(9711)	30 / 7	1200	14.2	135.7	9 / 8	0600	37.5	131.4	XT
颱風維克托	Typhoon Victor	(9712)	31 / 7	0000	17.0	114.2	3 / 8	0600	26.8	113.9	DISP
颱風芸妮	Typhoon Winnie	(9713)	8 / 8	1200	12.8	157.3	20 / 8	0600	36.8	118.6	XT
強烈熱帶風暴尤里	Severe Tropical Storm Yule	(9714)	16 / 8	1800	10.3	164.7	23 / 8	0000	38.4	172.5	XT
颱風思蒂	Typhoon Zita	(9715)	20 / 8	1800	19.1	116.5	23 / 8	0600	21.2	105.8	DISP
颱風艾碧	Typhoon Amber	(9716)	21 / 8	0000	13.4	131.4	30 / 8	0000	28.1	116.9	DISP
颱風秉格	Typhoon Bing	(9718)	26 / 8	0600	11.0	159.0	4 / 9	1200	40.3	156.6	XT
熱帶風暴卡絲	Tropical Storm Cass	(9717)	27 / 8	0600	18.9	113.9	30 / 8	1200	25.2	118.2	DISP
颱風奧利華	Typhoon Oliwa	(9719)	4 / 9	1200	14.1	179.8	16 / 9	1800	35.2	134.4	XT
颱風大衛	Typhoon David	(9720)	12 / 9	0000	13.2	169.5	19 / 9	1200	38.6	147.2	XT
熱帶低氣壓艾娜	Tropical Depression Ella		21 / 9	0600	24.9	169.8	23 / 9	0000	28.2	156.7	DISP
強烈熱帶風暴斐歷士	Severe Tropical Storm Fritz	(9721)	23 / 9	0000	16.0	111.1	25 / 9	1800	15.4	106.8	DISP
颱風珍芝	Typhoon Ginger	(9722)	23 / 9	1800	12.8	165.0	30 / 9	0600	43.4	173.2	XT
熱帶低氣壓漢奇	Tropical Depression Hank		3 / 10	0000	14.7	112.2	3 / 10	1800	15.0	109.8	DISP
颱風艾雲	Typhoon Ivan	(9723)	13 / 10	1800	11.2	150.1	24 / 10	0600	26.7	134.7	XT
颱風鍾茵	Typhoon Joan	(9724)	13 / 10	1800	12.4	166.8	23 / 10	1200	29.8	155.3	XT
颱風祈輔	Typhoon Keith	(9725)	28 / 10	0000	7.1	167.3	8 / 11	0600	29.1	152.3	XT
強烈熱帶風暴蓮達	Severe Tropical Storm Linda	(9726)	31 / 10	1800	7.3	114.2	7 / 11	0000	15.1	90.8	DISP
熱帶風暴莫特	Tropical Storm Mort	(9727)	11 / 11	0600	11.9	138.7	16 / 11	0600	15.4	122.5	DISP
颱風柏加	Typhoon Paka	(9728)	7 / 12	1200	8.5	179.4	21 / 12	1800	18.4	131.5	DISP

+ 時間為協調世界時

\* Times are given in UTC

表 4.2 一九九七年為船舶發出的熱帶氣旋警告

TABLE 4.2 TROPICAL CYCLONE WARNINGS FOR SHIPPING ISSUED IN 1997

熱帶氣旋	Tropical cyclone	發出警告 的次數 No. of warnings issued	發出的日期及時間 Date and time of issue of				警告的 時段 (小時) Duration of warnings (hours)
			首次警告 First warning		末次警告 Last warning		
			日期/月份 Date/Month	時間 <sup>+</sup> Time <sup>+</sup>	日期/月份 Date/Month	時間 <sup>+</sup> Time <sup>+</sup>	
* 颱風維克托	* Typhoon Victor	23	31 / 7	0600	3 / 8	0000	66
颱風芸妮	Typhoon Winnie	10	17 / 8	1800	18 / 8	2100	27
* 颱風思蒂	* Typhoon Zita	24	20 / 8	1500	23 / 8	0900	66
颱風艾碧	Typhoon Amber	19	27 / 8	1500	29 / 8	2100	54
熱帶風暴卡絲	Tropical Storm Cass	19	28 / 8	0000	30 / 8	0600	54
強烈熱帶風暴斐歷士	Severe Tropical Storm Fritz	21	23 / 9	0000	25 / 9	1200	60
熱帶低氣壓漢奇	Tropical Depression Hank	9	3 / 10	0600	4 / 10	0600	24
颱風艾雲	Typhoon Ivan	25	18 / 10	1500	21 / 10	1500	72
熱帶風暴莫特	Tropical Storm Mort	14	15 / 11	0600	16 / 11	1500	33
	共 Total	164					456

\* 此熱帶氣旋需要天文台懸掛熱帶氣旋警告信號。

\* Tropical cyclones for which tropical cyclone warning signals were hoisted in Hong Kong.

<sup>+</sup> 時間為協調世界時

<sup>+</sup> Times are given in UTC

表 4.3 一九九七年天文台所懸掛的熱帶氣旋警告信號及警報發出的次數

TABLE 4.3 TROPICAL CYCLONE WARNING SIGNALS HOISTED IN HONG KONG AND NUMBER OF WARNING BULLETINS ISSUED IN 1997

## 摘要 SUMMARY

信號 Signal	次數 No. of occasions	總時段 Total duration	
		時 h	分 min
1	2	32	45
3	3	49	15
8 西北 NW	-	-	-
8 西南 SW	1	3	50
8 東北 NE	1	4	50
8 東南 SE	-	-	-
9	1	6	50
10	-	-	-
共 Total	8	97	30

## 詳情 DETAILS

熱帶氣旋 Tropical cyclone	警報發出 的次數 No. of warning bulletins issued	信號 Signal	懸掛 Hoisted		除下 Lowered	
			日期/月份	時間*	日期/月份	時間*
			Date/Month	Time*	Date/Month	Time*
颱風維克托 Typhoon Victor	65	1	31 / 7	1400	1 / 8	1000
		3	1 / 8	1000	2 / 8	1200
		8 東北 NE	2 / 8	1200	2 / 8	1650
		9	2 / 8	1650	2 / 8	2340
		8 西南 SW	2 / 8	2340	3 / 8	0330
		3	3 / 8	0330	3 / 8	0445
颱風思蒂 Typhoon Zita	36	1	20 / 8	2300	21 / 8	1145
		3	21 / 8	1145	22 / 8	0945

\* 香港時間 (協調世界時加八小時)

\* Hong Kong Time (UTC + 8 hours)

表 4.4 一九五六至一九九七年間每年各熱帶氣旋警告信號的懸掛次數及總時段  
 TABLE 4.4 FREQUENCY AND TOTAL DURATION OF DISPLAY OF TROPICAL CYCLONE WARNING SIGNALS : 1956-1997

年份 Year	信號 Signals	1	3	8 西北 NW	8 西南 SW	8 東北 NE	8 東南 SE	9	10	總時段 Total duration	
										時 h	分 min
1956	5	4	0	0	0	0	0	0	0	191	25
1957	4	9	1	1	2	2	0	0	1	295	45
1958	4	5	0	0	1	0	0	0	0	214	5
1959	1	1	0	0	0	0	0	0	0	36	35
1960	11	7	0	2	2	2	1	1	1	432	35
1961	6	7	1	2	1	0	1	1	1	192	55
1962	4	3	0	1	1	0	1	1	1	158	10
1963	4	5	0	0	1	0	0	0	0	175	50
1964	11	14	1	3	5	3	3	3	2	570	15
1965	7	6	0	0	1	1	0	0	0	239	40
1966	6	5	0	0	2	2	0	0	0	284	40
1967	8	6	0	0	2	1	0	0	0	339	10
1968	7	7	0	1	1	0	1	1	1	290	10
1969	4	2	0	0	0	0	0	0	0	110	15
1970	6	8	2	1	2	0	0	0	0	286	45
1971	9	10	1	3	2	2	1	1	1	323	25
1972	8	6	0	0	1	1	0	0	0	288	20
1973	8	6	1	1	1	0	1	1	0	416	50
1974	12	10	0	0	2	1	1	1	0	525	20
1975	8	6	1	0	0	1	1	1	1	292	20
1976	6	6	0	0	1	2	0	0	0	351	30
1977	8	6	0	0	1	0	0	0	0	395	10
1978	8	9	1	1	3	2	0	0	0	462	10
1979	5	5	1	0	2	2	1	1	1	281	15
1980	10	8	0	0	1	1	0	0	0	414	5
1981	5	4	0	0	1	1	0	0	0	202	20
1982	7	4	0	0	0	0	0	0	0	247	35
1983	8	7	0	1	2	2	1	1	1	289	42
1984	6	6	0	0	1	0	0	0	0	280	2
1985	5	4	1	0	0	1	0	0	0	193	35
1986	6	7	0	1	1	0	0	0	0	305	0
1987	6	1	0	0	0	0	0	0	0	165	45
1988	6	4	0	0	0	0	0	0	0	204	10
1989	7	8	0	0	2	2	0	0	0	306	10
1990	6	4	0	0	0	0	0	0	0	245	10
1991	8	6	0	0	1	1	0	0	0	349	55
1992	5	5	0	0	1	1	0	0	0	167	5
1993	8	9	0	0	2	4	0	0	0	325	40
1994	4	3	0	0	0	0	0	0	0	138	10
1995	8	6	2	2	1	1	0	0	0	348	50
1996	7	2	0	0	0	1	0	0	0	189	0
1997	2	3	0	1	1	0	1	0	0	97	30
共 Total	274	244	13	21	48	37	14	11	11	11624	19
平均 Mean	6.5	5.8	0.3	0.5	1.1	0.9	0.3	0.3	0.3	276	46

表 4.5 一九五六至一九九七年間每年位於香港責任範圍內以及每年需要天文台懸掛熱帶氣旋警告信號的熱帶氣旋總數

TABLE 4.5 ANNUAL NUMBER OF TROPICAL CYCLONES IN HONG KONG'S AREA OF RESPONSIBILITY AND THE NUMBER THAT NECESSITATED THE DISPLAY OF TROPICAL CYCLONE WARNING SIGNALS IN HONG KONG : 1956-1997

年份 Year	每年位於香港責任範圍內的熱帶氣旋總數 Annual number of tropical cyclones in Hong Kong's area of responsibility	每年需要天文台懸掛熱帶氣旋警告信號的熱帶氣旋總數 Annual number of tropical cyclones necessitating the display of signals in Hong Kong
1956	23	5
1957	12	6
1958	15	5
1959	18	2
1960	18	9
1961	24	6
1962	20	4
1963	13	4
1964	26	10
1965	16	6
1966	17	6
1967	17	8
1968	12	6
1969	11	4
1970	21	6
1971	20	9
1972	15	5
1973	17	9
1974	21	11
1975	12	7
1976	10	5
1977	10	8
1978	20	8
1979	18	6
1980	17	10
1981	15	5
1982	16	5
1983	15	7
1984	14	5
1985	15	5
1986	16	4
1987	12	5
1988	17	6
1989	17	7
1990	18	6
1991	14	6
1992	11	5
1993	14	9
1994	20	4
1995	17	8
1996	15	7
1997	10	2
共 Total	679	261
平均 Mean	16.2	6.2

表 4.6 一九五六至一九九七年間天文台懸掛熱帶氣旋警告信號的時段

TABLE 4.6 DURATION OF TROPICAL CYCLONE WARNING SIGNALS HOISTED IN HONG KONG: 1956-1997

信號 Signal	次數 Number of occasions	每次時段 Duration of each occasion						每年總時段 Total duration per year					
		平均 Mean		最長 Maximum		最短 Minimum		平均 Mean		最長 Maximum		最短 Minimum	
		時	分	時	分	時	分	時	分	時	分	時	分
		h	min	h	min	h	min	h	min	h	min	h	min
一號或以上 1 or higher	271	42	54	161	0	9	35	276	46	570	15	36	35
三號或以上 3 or higher	185	30	59	124	15	6	55	136	29	306	35	17	15
八號或以上 8 or higher	61	15	57	66	50	2	40	23	10	100	55	0	0
8 西北 NW	13	6	29	15	45	1	30	2	0	15	45	0	0
8 西南 SW	21	5	8	10	45	2	30	2	34	16	10	0	0
8 東北 NE	48	8	23	35	35	2	35	9	35	40	20	0	0
8 東南 SE	37	7	17	21	45	0	20	6	25	31	15	0	0
九號或以上 9 or higher	15	7	16	11	33	3	35	2	36	19	25	0	0
10	11	6	10	9	10	2	30	1	37	12	10	0	0

表 4.7 一九九七年當熱帶氣旋影響香港時本港的氣象觀測摘要

TABLE 4.7 A SUMMARY OF METEOROLOGICAL OBSERVATIONS RECORDED IN HONG KONG DURING THE PASSAGES OF TROPICAL CYCLONES IN 1997

熱帶氣旋 名稱 Name of tropical cyclone	當最接近香港時 Nearest approach to Hong Kong							香港天文台錄得的最低每小時 平均海平面氣壓 (百帕斯卡) Minimum hourly M.S.L. pressure at the Hong Kong Observatory				最大風暴潮 (米) Maximum storm surge (metres)					
	月份 Month	日期 Date	時間* Hour*	方位 Direction	距離 (公里) Distance (km)	移動方向 及速度 (公里每小時) Movement (km/h)	估計最低 中心氣壓 (百帕斯卡) Estimated minimum central pressure (hPa)	月份 Month	日期 Date	時間* Hour*	氣壓 (百帕斯卡) Pressure (hPa)	樂安排 Lok On Pai	鯽魚涌 Quarry Bay	大澳 Tai O	大埔滘 Tai Po Kau	尖鼻咀 Tsim Bei Tsui	橫瀾島 Waglan Island
颱風維克托 T. Victor	8	2	20	西 W	10	北 22 N 22	970	8	2	20	973.7	0.70	1.01	0.76	-	1.13	0.93
颱風思蒂 T. Zita	8	21	17	南 S	240	西 20 W 20	980	8	21	17	999.0	0.51	0.62	0.47	-	-	0.59

\* 香港時間 (協調世界時加八小時)

\* Hong Kong Time (UTC + 8 hours)

表 4.7 (續)  
TABLE 4.7 (cont'd)

熱帶氣旋 名稱 Name of tropical cyclone	月份 Month	最高60分鐘平均風向及風速 (公里每小時) Maximum 60-min mean wind in points and km/h		最高10分鐘平均風向及風速 (公里每小時) Maximum 10-min mean wind in points and km/h		最高陣風風向及風速 (公里每小時) Maximum gust peak speed in km/h with direction in points	
		京士柏 King's Park	橫瀾島 Waglan Island	京士柏 King's Park	橫瀾島 Waglan Island	京士柏 King's Park	橫瀾島 Waglan Island
颱風維克托 T. Victor	7 - 8	西南偏南 SSW 49	西南 SW 110	西南偏南 SSW 54	西南偏南 SSW 112	西南 SW 104	西南 SW 137
颱風思蒂 T. Zita	8	東北偏東 ENE 36	東北偏東 ENE 83	東南偏東 ESE 43	東北偏東 ENE 87	東 E 87	東 E 112

表 4.8.1 一九九七年位於香港600公里範圍內的熱帶氣旋及其為本港帶來的雨量  
 TABLE 4.8.1 RAINFALL ASSOCIATED WITH EACH TROPICAL CYCLONE THAT CAME WITHIN 600 KM OF HONG KONG IN 1997

熱帶氣旋 名稱 Name of tropical cyclone	熱帶氣旋位於 香港600公里 範圍內的時期 Period when tropical cyclone within 600 km of Hong Kong (T <sub>1</sub> → T <sub>2</sub> ) 日期/月份 時間* Date/Month Time*		香港天文台錄得的雨量(毫米) Rainfall at the Hong Kong Observatory (mm)				
	(i) 在香港600公里內 within 600 km of Hong Kong (T <sub>1</sub> → T <sub>2</sub> )	(ii) 在 T <sub>2</sub> 之後 的24小時內 24-hour period after T <sub>2</sub>	(iii) 在 T <sub>2</sub> 之後 的48小時內 48-hour period after T <sub>2</sub>	(iv) 在 T <sub>2</sub> 之後 的72小時內 72-hour period after T <sub>2</sub>	(i) + (iv) 共 Total T <sub>1</sub> → (T <sub>2</sub> +72 小時 hours)		
颱風維克托 T. Victor	(T <sub>1</sub> ) 31 / 7 0800 - (T <sub>2</sub> ) 3 / 8 1400	241.2	微量 Trace	1.3	2.0	243.2	
颱風思蒂 T. Zita	(T <sub>1</sub> ) 21 / 8 0200 - (T <sub>2</sub> ) 22 / 8 2200	238.3	3.4	60.5	88.4	326.7	
熱帶風暴卡絲 # T.S. Cass	(T <sub>1</sub> ) 27 / 8 1400 - (T <sub>2</sub> ) 30 / 8 2000	微量 Trace	微量 Trace	微量 Trace	0.1	0.1	
					共 Total :	570.0	

\* 香港時間 (協調世界時加八小時)

T<sub>1</sub> - 熱帶氣旋首次出現於香港600公里範圍內的時間。

T<sub>2</sub> - 熱帶氣旋在香港600公里範圍內消散或離開該範圍的時間。

# 該熱帶氣旋並未需要天文台懸掛熱帶氣旋警告信號。

\* Hong Kong Time (UTC + 8 hours)

T<sub>1</sub> - The time when a tropical cyclone was first centred within 600 km of Hong Kong.

T<sub>2</sub> - The time when a tropical cyclone was dissipated within or moved outside 600 km of Hong Kong.

# Tropical cyclone without hoisting of tropical cyclone warning signal in Hong Kong.

表 4.8.2 一八八四至一九三九年及一九四七至一九九七年間十個為香港帶來最多雨量的熱帶氣旋  
TABLE 4.8.2 TEN WETTEST TROPICAL CYCLONES IN HONG KONG (1884-1939, 1947-1997)

熱帶氣旋 Tropical Cyclone			香港天文台錄得的雨量(毫米) Rainfall at the Hong Kong Observatory (mm)				
年份 Year	月份 Month	名稱 Name	(i) 在香港600公里內 within 600 km of Hong Kong (T <sub>1</sub> →T <sub>2</sub> )	(ii) 在 T <sub>2</sub> 之後的 24 小時內 24-hour period after T <sub>2</sub>	(iii) 在 T <sub>2</sub> 之後的 48 小時內 48-hour period after T <sub>2</sub>	(iv) 在 T <sub>2</sub> 之後的 72 小時內 72-hour period after T <sub>2</sub>	(i) + (iv) 共 Total T <sub>1</sub> → (T <sub>2</sub> +72 小時 hours)
1926	7	-	34.8 #	534.0 #	561.1 #	562.2 #	597.0
1916	6	-	494.8 #	27.9 #	59.4 #	67.2 #	562.0
1965	9	愛娜斯 Agnes	404.6	8.9	64.3	126.1	530.7
1978	7	愛娜斯 Agnes	502.4	12.3	12.3	16.6	519.0
1976	8	愛倫 Ellen	90.7	394.2	421.0	425.4	516.1
1993	9	黛蒂 Dot	459.6	37.9	37.9	37.9	497.5
1982	8	黛蒂 Dot	41.2	322.5	403.1	450.5	491.7
1995	8	海倫 Helen	241.4	146.2	235.2	239.5	480.9
1904	8	-	446.5 #	- #	3.7 #	26.7 #	473.2
1974	10	嘉曼 Carmen	307.6	150.3	161.7	162.1	469.7

T<sub>1</sub> - 熱帶氣旋首次出現於香港600公里範圍內的時間。

T<sub>2</sub> - 熱帶氣旋在香港600公里範圍內消散或離開該範圍的時間。

# 對於一九六一年以前的熱帶氣旋，欄(i)顯示當它位於香港600公里範圍內的日子裡，天文台所錄得的總日雨量，欄(ii)至(iv)分別是指其後一至三天累積的日雨量。

T<sub>1</sub> - The time when a tropical cyclone was first centred within 600 km of Hong Kong.

T<sub>2</sub> - The time when a tropical cyclone was dissipated within or moved outside 600 km of Hong Kong.

# For years prior to 1961, column (i) is the sum of daily rainfall on those days when a tropical cyclone was centred within 600 km of Hong Kong, columns (ii) to (iv) show respectively the accumulated daily rainfall on the following one to three days.



表 4.10 一九九七年熱帶氣旋在香港所造成的損失  
TABLE 4.10 DAMAGE CAUSED BY TROPICAL CYCLONES IN HONG KONG IN 1997

熱帶氣旋 名稱 Name of tropical cyclone	月份 Month	物質損毀 Damage in physical terms					金錢損失 (百萬港元) Damage in monetary terms (million HK\$)					
		農業 Agriculture	公用建設 Public works facilities	公用業務 Public utilities	私人物業 Private property	山泥傾瀉及 斜坡倒塌 Landslip and collapse of slope	農業 Agriculture	公用建設 Public works facilities	公用業務 Public utilities	私人物業 Private property	其他 Others	共 Total
颱風維克托 T. Victor	7 - 8	農地 farmland: 140 公頃 hectares 塘魚 pond fish: 6.4 噸tons	道路roads: 7 處sites 水利設施 irrigation facilities: 2 處sites	電力供應 electric supply: 21 900 用戶 families	-	17 宗cases	1.87	2.57	-	-	-	4.44
颱風思蒂 T. Zita	8	農地 farmland: 43 公頃 hectares 牲畜 livestock: 1 800 頭 heads 塘魚 pond fish: 4.8 噸tons	道路roads: 8 處sites 水利設施 irrigation facilities: 2 處sites	電力供應 electric supply: 1 900 用戶 families	1 單位unit	19 宗cases	0.16	0.39	-	-	-	0.55

備註：資料由各有關政府部門及公共事業機構提供，同時亦參考了本地報章上的損毀報導。

N.B.: Based on information supplied by relevant government departments and public utility companies. Damage reports in the local press were also examined and collated.

表 4.11 一九六八至一九九七年間熱帶氣旋在香港所造成的人命傷亡及破壞  
 TABLE 4.11 CASUALTIES AND DAMAGE CAUSED BY TROPICAL CYCLONES IN HONG KONG : 1968-1997

年份 Year	日期 / 月份 Date / Month	Name of tropical cyclone	熱帶氣旋 名稱	遇事越洋 船舶 Ocean-going vessels in trouble	受到毀壞 或翻沉的 小艇數目 Small craft sunk or wrecked	受到損壞 的小艇 數目 Small craft damaged	死亡人數 Persons dead	失蹤人數 Persons missing	受傷人數 Persons injured
1968	17 / 8 - 22 / 8	T. Shirley	雪麗	1	*	3	0	0	4
1969	22 / 7 - 29 / 7	T. Viola	維奧莉	0	3	0	0	0	0
1970	1 / 8 - 3 / 8	T.D.	-	0	0	0	2 <sup>+</sup>	0	0
	8 / 9 - 14 / 9	T. Georgia	喬治亞	2	0	*	0	0	0
1971	15 / 6 - 18 / 6	T. Freda	法妮黛	8	0	0	2	0	30
	16 / 7 - 22 / 7	T. Lucy	露茜	10	2	13	0	0	38
	10 / 8 - 17 / 8	T. Rose	露絲	33**	303	*	110	5	286
1972	4 / 11 - 9 / 11	T. Pamela	柏美娜	3	0	0	1	0	8
1973	14 / 7 - 20 / 7	T. Dot	黛蒂	14	*	*	1	0	38
1974	7 / 6 - 14 / 6	T. Dinah	戴娜	1	*	*	0	0	0
	18 / 7 - 22 / 7	T. Ivy	艾菲	2	*	*	0	0	0
	15 / 10 - 19 / 10	T. Carmen	嘉曼	5	*	*	1	0	0
	21 / 10 - 27 / 10	T. Della	黛娜	2	*	*	0	0	0
1975	10 / 8 - 14 / 8	T.D.	-	3	1	*	2	1	0
	9 / 10 - 14 / 10	T. Elsie	愛茜	7	2	1	0	0	46
	16 / 10 - 23 / 10	S.T.S. Flossie	霍蘿茜	1	*	*	0	0	0
1976	22 / 6 - 4 / 7	T. Ruby	露比	0	0	0	3	2	2
	21 / 7 - 26 / 7	S.T.S. Violet	維奧莉	0	0	0	2	1	1
	5 / 8 - 6 / 8	S.T.S. Clara	嘉麗	0	0	0	0	0	4
	21 / 8 - 24 / 8	T.S. Ellen	愛倫	0	4	7	27	3	65
	15 / 9 - 21 / 9	T. Iris	愛莉斯	6	0	1	0	0	27
1977	4 / 7 - 6 / 7	T.D.	-	0	0	0	0	0	2
	3 / 9 - 5 / 9	T.S. Carla	嘉娜	1	0	0	0	0	1
	22 / 9 - 25 / 9	S.T.S. Freda	法妮黛	2	0	0	1	0	37
1978	24 / 7 - 30 / 7	S.T.S. Agnes	愛娜斯	0	25	42	3	0	134
	9 / 8 - 12 / 8	T.S. Bonnie	邦妮	2	0	0	0	0	0
	23 / 8 - 28 / 8	S.T.S. Elaine	伊蘭	8	5	8	1	0	51
	22 / 9 - 26 / 9	S.T.S. Kit	吉蒂	0	1	0	0	7	0
	7 / 10 - 16 / 10	S.T.S. Nina	蓮娜	0	0	0	0	0	2
	17 / 10 - 29 / 10	T. Rita	麗妲	1	5	0	0	0	3
1979	1 / 7 - 6 / 7	T. Ellis	艾利斯	0	2	0	0	0	0
	26 / 7 - 30 / 7	T.S. Gordon	戈登	0	2	0	0	0	0
	28 / 7 - 3 / 8	T. Hope	荷貝	29	167	207	12	0	260
	6 / 8 - 9 / 8	T.D.	-	0	3	0	0	0	0
	16 / 9 - 24 / 9	S.T.S. Mac	麥克	2	12	0	1	0	67
1980	5 / 7 - 12 / 7	S.T.S. Ida	艾黛	1	0	0	0	0	0
	18 / 7 - 23 / 7	T. Joe	喬伊	4	0	1	2	1	59
	20 / 7 - 28 / 7	T. Kim	甘茵	0	2	1	0	0	0
	29 / 10 - 2 / 11	T.S. Cary	卡里	0	0	2	0	0	0
1981	3 / 7 - 7 / 7	S.T.S. Lynn	林茵	0	0	3	0	0	32
1982	27 / 6 - 2 / 7	T.S. Tess	戴絲	0	1	0	0	0	16
	22 / 7 - 30 / 7	T. Andy	安迪	0	0	1	0	0	0
	5 / 9 - 16 / 9	T. Irving	伊文	0	0	2	0	0	0
1983	12 / 7 - 19 / 7	T. Vera	維娜	0	1	0	0	0	0
	29 / 8 - 9 / 9	T. Ellen	愛倫	44	135	225	10	12	333
	10 / 10 - 14 / 10	T. Joe	喬伊	2	0	3	0	0	58
	20 / 10 - 26 / 10	S.T.S. Lex	力士	0	0	1	0	0	0

表 4.11 (續)

TABLE 4.11 (cont'd)

年份 Year	日期 / 月份 Date / Month	Name of tropical cyclone	熱帶氣旋 名稱	遇事越洋 船舶 Ocean-going vessels in trouble	受到毀壞 或翻沉的 小艇數目 Small craft sunk or wrecked	受到損壞 的小艇 數目 Small craft damaged	死亡人數 Persons dead	失蹤人數 Persons missing	受傷人數 Persons injured
1984	27 / 8 - 7 / 9	T. Ike	艾克	0	0	0	0	0	1
1985	19 / 6 - 25 / 6	T. Hal	哈爾	0	4	2	0	1	13
	1 / 9 - 7 / 9	T. Tess	戴絲	6	1	3	2	0	12
	13 / 10 - 22 / 10	T. Dot	黛蒂	0	0	0	0	0	1
1986	3 / 7 - 12 / 7	T. Peggy	蓓姬	3	0	3	1	0	26
	9 / 8 - 12 / 8	T.D.	-	0	1	5	0	0	3
	18 / 8 - 6 / 9	T. Wayne	韋恩	0	3	0	3	1	15 <sup>+</sup>
	11 / 10 - 19 / 10	T. Ellen	愛倫	1	2	1	0	0	4
1987	16 / 10 - 27 / 10	T. Lynn	林茵	0	0	0	0	0	1
1988	14 / 7 - 20 / 7	T. Warren	華倫	1	2	1	0	1	12
	19 / 9 - 22 / 9	T. Kit	吉蒂	0	0	1	0	0	0
	18 / 10 - 23 / 10	T. Pat	帕特	0	0	0	2	0	1
	21 / 10 - 29 / 10	T. Ruby	露比	0	0	0	0	0	4
1989	16 / 5 - 21 / 5	T. Brenda	布倫達	0	3	5	6	1	119
	11 / 7 - 19 / 7	T. Gordon	戈登	1	0	8	2	0	31
	8 / 10 - 14 / 10	T. Dan	丹尼	1	0	1	0	0	0
1990	15 / 5 - 19 / 5	T. Marian	瑪麗安	0	0	1	0	0	0
	15 / 6 - 19 / 6	S.T.S. Nathan	彌敦	1	0	2	5	1	1
	21 / 6 - 30 / 6	T. Percy	珀西	0	0	0	1	0	0
	27 / 7 - 31 / 7	S.T.S. Tasha	泰莎	0	1	0	0	0	1
	25 / 8 - 30 / 8	T. Becky	貝姬	0	0	0	0	1	0
	10 / 9 - 20 / 9	T. Ed	義德	0	0	0	0	0	1
1991	15 / 7 - 20 / 7	T. Amy	艾美	1	0	2	0	0	1
	20 / 7 - 24 / 7	S.T.S. Brendan	布倫登	1	1	13	0	0	17
	13 / 8 - 18 / 8	T. Fred	法雷德	0	1	0	0	0	0
1992	9 / 7 - 14 / 7	T. Eli	艾里	0	0	1	0	0	23
	17 / 7 - 18 / 7	T.S. Faye	菲爾	1	0	3	2	0	24
	19 / 7 - 23 / 7	S.T.S. Gary	加里	2	0	0	0	0	18
1993	21 / 6 - 28 / 6	T. Koryn	高蓮	0	0	2	0	0	183
	16 / 8 - 21 / 8	T. Tasha	泰莎	0	0	7	0	0	35
	9 / 9 - 14 / 9	T. Abe	艾貝	0	0	0	1	0	0
	15 / 9 - 17 / 9	S.T.S. Becky	貝姬	0	0	10	1	0	130
	23 / 9 - 27 / 9	T. Dot	黛蒂	0	1	0	0	1	48
	28 / 10 - 5 / 11	T. Ira	艾拉	0	1	0	2	0	30
1994	23 / 6 - 25 / 6	T.S. Sharon	莎朗	0	1	1	0	0	5
	25 / 8 - 29 / 8	S.T.S. Harry	夏里	0	0	2	1	0	2
1995	7 / 8 - 12 / 8	S.T.S. Helen	海倫	0	0	0	3	0	35
	25 / 8 - 1 / 9	T. Kent	肯特	0	0	0	0	0	5
	28 / 9 - 4 / 10	T. Sibyl	斯寶	0	0	0	0	0	14
1996	5 / 9 - 10 / 9	T. Sally	莎莉	0	0	0	2	0	4
	18 / 9 - 23 / 9	S.T.S. Willie	威利	0	0	0	0	1	0
1997	31 / 7 - 3 / 8	T. Victor	維克托	0	0	0	1	0	58
	20 / 8 - 23 / 8	T. Zita	思蒂	0	0	0	0	0	3

備註：資料由各有關政府部門及公共事業機構提供，同時亦參考了本地報章上的損毀報導。

N.B.: Based on information supplied by relevant government departments and public utility companies. Damage reports in the local press were also examined and collated.

\* 缺乏數據 Data unavailable.

+ 被雷電擊中 Struck by lightning.

\*\*註：遇事越洋船舶數字已在2021年7月30日修訂。

\*\*Note: Number of Ocean-going vessels in trouble is revised on 30 Jul 2021.

## 第五節

一九九七年熱帶氣旋的位置及強度數據

### Section 5

**TROPICAL CYCLONE POSITION AND  
INTENSITY DATA, 1997**

以下是一九九七年位於北太平洋西部及南海區域(即由赤道至北緯45度、東經100度至180度所包括的範圍)的熱帶氣旋。其每六小時之位置及強度刊於本節。

熱帶氣旋名稱	頁
熱帶低氣壓漢娜	70
颱風伊莎(9701)	71
熱帶風暴占美(9702)	72
熱帶風暴姬莉(9703)	73
熱帶風暴利維(9704)	74
颱風曼莉(9705)	75
颱風尼士達(9706)	76
颱風奧蓓(9707)	77
颱風彼德(9708)	78
颱風露絲(9709)	79
熱帶風暴史葛(9710)	80
颱風天娜(9711)	81
颱風維克托(9712)	82
颱風芸妮(9713)	83
強烈熱帶風暴尤里(9714)	85
颱風思蒂(9715)	86
颱風艾碧(9716)	87
颱風秉格(9718)	88
熱帶風暴卡絲(9717)	89
颱風奧利華(9719)	90
颱風大衛(9720)	92
熱帶低氣壓艾娜	93
強烈熱帶風暴斐歷士(9721)	94
颱風珍芝(9722)	95
熱帶低氣壓漢奇	96
颱風艾雲(9723)	97
颱風鍾茵(9724)	98
颱風祈輔(9725)	99
強烈熱帶風暴蓮達(9726)	100
熱帶風暴莫特(9727)	101
颱風柏加(9728)	102

在本節，風速均取10分鐘內的平均值，單位為米每秒（1米每秒約為2海里或4公里每小時）。熱帶氣旋的強度分為：

- (a) T.D.: - 熱帶低氣壓
- (b) T.S.: - 熱帶風暴
- (c) S.T.S.: - 強烈熱帶風暴
- (d) T.: - 颱風

Six-hourly position and intensity data are tabulated in this section for the following tropical cyclones in 1997 over the western North Pacific and the South China Sea (i.e. the area bounded by the Equator, 45°N, 100°E and 180°).

Name of tropical cyclone	Page
Tropical Depression Hannah	70
Typhoon Isa (9701)	71
Tropical Storm Jimmy (9702)	72
Tropical Storm Kelly (9703)	73
Tropical Storm Levi (9704)	74
Typhoon Marie (9705)	75
Typhoon Nestor (9706)	76
Typhoon Opal (9707)	77
Typhoon Peter (9708)	78
Typhoon Rosie (9709)	79
Tropical Storm Scott (9710)	80
Typhoon Tina (9711)	81
Typhoon Victor (9712)	82
Typhoon Winnie (9713)	83
Severe Tropical Storm Yule (9714)	85
Typhoon Zita (9715)	86
Typhoon Amber (9716)	87
Typhoon Bing (9718)	88
Tropical Storm Cass (9717)	89
Typhoon Oliwa (9719)	90
Typhoon David (9720)	92
Tropical Depression Ella	93
Severe Tropical Storm Fritz (9721)	94
Typhoon Ginger (9722)	95
Tropical Depression Hank	96
Typhoon Ivan (9723)	97
Typhoon Joan (9724)	98
Typhoon Keith (9725)	99
Severe Tropical Storm Linda (9726)	100
Tropical Storm Mort (9727)	101
Typhoon Paka (9728)	102

In this section, surface winds refer to wind speeds averaged over a period of 10 minutes given in the unit of m/s (1 m/s is about 2 knots or 4 km/h). Intensities of tropical cyclones are classified as follows:-

- (a) T.D. : - tropical depression
- (b) T.S. : - tropical storm
- (c) S.T.S. : - severe tropical storm
- (d) T. : - typhoon

**熱帶低氣壓漢娜的每六小時之位置及強度**  
**SIX-HOURLY POSITION AND INTENSITY DATA OF**  
**TROPICAL DEPRESSION HANNAH**

月份 Month	日期 Date	時間 (協調世界時) Time (UTC)	強度 Intensity	估計最低 中心氣壓 (百帕斯卡) Estimated minimum central pressure (hPa)	估計 最高風速 (米每秒) Estimated maximum surface winds (m/s)	北緯 Lat. °N	東經 Long. °E	
一月 Jan	19	1200	T.D.	1004	13	6.2	138.7	
		1800	T.D.	1002	16	6.5	138.1	
	20	0000	T.D.	1002	16	6.8	137.5	
		0600	T.D.	1002	16	7.2	136.8	
		1200	T.D.	1002	16	7.6	136.0	
		1800	T.D.	1002	16	8.1	135.1	
	21	0000	T.D.	1002	16	8.9	134.1	
		0600	T.D.	1002	16	9.7	133.4	
		1200	T.D.	1002	16	10.5	133.2	
		1800	T.D.	1002	16	10.9	133.3	
	22	0000	T.D.	1002	16	11.2	133.4	
		0600	T.D.	1002	16	11.4	133.6	
		1200	T.D.	1004	13	11.6	133.8	
	消散 Dissipated							

**颱風伊莎(9701)的每六小時之位置及強度**  
**SIX-HOURLY POSITION AND INTENSITY DATA OF**  
**TYPHOON ISA (9701)**

月份 Month	日期 Date	時間 (協調世界時) Time (UTC)	強度 Intensity	估計最低 中心氣壓 (百帕斯卡) Estimated minimum central pressure (hPa)	估計 最高風速 (米每秒) Estimated maximum surface winds (m/s)	北緯 Lat. °N	東經 Long. °E
四月 Apr	12	0000	T.D.	1002	16	7.5	158.8
		0600	T.D.	1002	16	7.8	158.7
		1200	T.D.	1002	16	8.1	158.5
		1800	T.D.	1000	16	8.4	158.3
	13	0000	T.S.	996	18	8.7	158.1
		0600	T.S.	994	18	8.9	157.8
		1200	T.S.	994	18	9.3	157.2
		1800	T.S.	992	21	9.6	156.4
	14	0000	T.S.	992	21	9.9	155.4
		0600	T.S.	992	21	10.0	154.3
		1200	T.S.	992	21	10.1	153.1
		1800	T.S.	990	23	10.2	151.8
	15	0000	S.T.S.	985	25	10.2	150.5
		0600	S.T.S.	985	25	10.2	149.3
		1200	S.T.S.	980	28	10.2	148.4
		1800	S.T.S.	975	31	10.2	147.5
	16	0000	T.	970	33	10.2	146.7
		0600	T.	970	33	10.4	145.9
		1200	T.	970	33	10.7	145.1
		1800	T.	970	33	11.0	144.3
	17	0000	T.	965	36	11.4	143.5
		0600	T.	965	36	11.9	142.7
		1200	T.	960	39	12.3	141.9
		1800	T.	960	39	12.7	141.2
	18	0000	T.	960	39	13.0	140.5
		0600	T.	960	39	13.3	139.8
		1200	T.	955	41	13.5	139.3
		1800	T.	955	41	13.8	138.8
	19	0000	T.	950	43	14.2	138.4
		0600	T.	945	46	14.7	138.1
		1200	T.	940	49	15.3	137.9
		1800	T.	940	49	15.9	137.7
	20	0000	T.	940	49	16.5	137.6
		0600	T.	945	46	17.3	137.5
		1200	T.	950	43	18.2	137.5
		1800	T.	955	41	19.1	137.6
	21	0000	T.	960	39	20.0	137.7
		0600	T.	965	36	20.9	138.0
		1200	T.	970	33	22.1	138.5
		1800	S.T.S.	975	31	23.3	139.2
	22	0000	S.T.S.	980	25	24.6	140.1
		0600	S.T.S.	980	25	25.8	141.2
		1200	S.T.S.	980	25	26.9	142.7
		1800	T.S.	985	23	27.5	144.4
	23	0000	T.S.	985	23	28.3	146.2
		0600	T.S.	985	23	29.0	148.2
		1200	T.S.	985	23	30.0	150.3

變為溫帶氣旋  
Became Extratropical

**熱帶風暴占美(9702)的每六小時之位置及強度**  
**SIX-HOURLY POSITION AND INTENSITY DATA OF**  
**TROPICAL STORM JIMMY (9702)**

月份 Month	日期 Date	時間 (協調世界時) Time (UTC)	強度 Intensity	估計最低 中心氣壓 (百帕斯卡) Estimated minimum central pressure (hPa)	估計 最高風速 (米每秒) Estimated maximum surface winds (m/s)	北緯 Lat. °N	東經 Long. °E
四月 Apr	22	1800	T.D.	1002	16	13.5	155.1
		23	T.D.	1002	16	14.3	154.6
	23	0600	T.D.	1002	16	15.1	154.1
		1200	T.D.	1002	16	15.8	153.8
		1800	T.S.	998	18	16.6	153.6
		0000	T.S.	998	18	17.6	153.8
		0600	T.S.	998	18	18.6	154.4
		1200	T.S.	998	18	19.8	155.4
	24	1800	T.S.	998	18	20.6	156.1
		0000	T.S.	998	18	20.4	155.4
		0600	T.D.	1000	16	20.1	155.8
		1200	T.D.	1000	16	20.6	156.6

消散  
Dissipated

**熱帶風暴姬莉(9703)的每六小時之位置及強度**  
**SIX-HOURLY POSITION AND INTENSITY DATA OF**  
**TROPICAL STORM KELLY (9703)**

月份 Month	日期 Date	時間 (協調世界時) Time (UTC)	強度 Intensity	估計最低 中心氣壓 (百帕斯卡) Estimated minimum central pressure (hPa)	估計 最高風速 (米每秒) Estimated maximum surface winds (m/s)	北緯 Lat. °N	東經 Long. °E
五月 May	7	0000	T.D.	1004	13	9.6	167.0
		0600	T.D.	1004	13	10.1	166.8
		1200	T.D.	1002	16	10.5	166.7
		1800	T.D.	1000	16	10.8	166.7
	8	0000	T.S.	996	18	11.1	166.8
		0600	T.S.	996	18	11.5	166.9
		1200	T.S.	996	18	11.9	167.0
		1800	T.S.	996	18	12.2	167.0
	9	0000	T.D.	1000	16	12.5	166.9
		0600	T.D.	1000	16	12.8	166.7
		1200	T.D.	1000	16	13.2	166.3
		1800	T.D.	1000	16	13.6	165.5
	10	0000	T.D.	1002	13	13.9	164.6
		0600	T.D.	1004	13	14.1	163.5

消散  
Dissipated

風暴利維(9704)的每六小時之位置及強度  
 SIX-HOURLY POSITION AND INTENSITY DATA OF  
 TROPICAL STORM LEVI (9704)

月份 Month	日期 Date	時間 (協調世界時) Time (UTC)	強度 Intensity	估計最低 中心氣壓 (百帕斯卡) Estimated minimum central pressure (hPa)	估計 最高風速 (米每秒) Estimated maximum surface winds (m/s)	北緯 Lat. °N	東經 Long. °E	
五月 May	25	1800	T.D.	1002	13	16.3	118.0	
		26	0000	T.D.	1000	13	16.3	119.3
			0600	T.D.	1000	13	16.2	120.8
			1200	T.D.	1000	13	16.3	122.4
			1800	T.D.	1000	13	16.8	123.6
			27	0000	T.D.	1000	13	17.4
	0600	T.D.		998	16	17.9	125.3	
	1200	T.S.		996	18	18.4	125.8	
	28	1800	T.S.	996	18	19.1	126.3	
		0000	T.S.	996	18	20.0	126.6	
		0600	T.S.	992	21	20.9	126.9	
		1200	T.S.	992	21	21.8	127.1	
	29	1800	T.S.	992	21	22.8	127.4	
		0000	T.S.	996	18	24.1	127.6	
			0600	T.S.	996	18	25.2	128.4

變為溫帶氣旋  
 Became Extratropical

**風曼莉(9705)的每六小時之位置及強度**  
**SIX-HOURLY POSITION AND INTENSITY DATA OF**  
**TYPHOON MARIE (9705)**

月份 Month	日期 Date	時間 (協調世界時) Time (UTC)	強度 Intensity	估計最低 中心氣壓 (百帕斯卡) Estimated minimum central pressure (hPa)	估計 最高風速 (米每秒) Estimated maximum surface winds (m/s)	北緯 Lat. °N	東經 Long. °E	
五月 May	28	1200	T.D.	1002	13	13.3	158.1	
		1800	T.D.	1000	16	13.7	158.3	
	29	0000	T.S.	998	18	14.2	158.6	
		0600	T.S.	996	18	14.8	158.9	
		1200	T.S.	996	18	15.6	159.2	
	30	1800	T.S.	994	21	16.6	159.6	
		0000	T.S.	990	23	17.6	159.8	
		0600	S.T.S.	985	25	18.6	160.0	
	31	1200	S.T.S.	985	25	19.7	160.0	
		1800	S.T.S.	980	28	20.9	160.1	
		0000	T.	970	33	22.0	160.3	
		0600	T.	970	33	23.1	160.8	
		1200	T.	970	33	24.1	161.6	
	六月 Jun	1	1800	S.T.S.	975	31	25.2	162.6
			0000	S.T.S.	980	28	26.3	163.9
0600			S.T.S.	985	25	27.6	165.7	
1200			S.T.S.	985	25	29.0	168.3	
2		1800	T.S.	990	23	30.1	171.2	
		0000	T.S.	994	21	31.8	174.4	

變為溫帶氣旋  
Became Extratropical

**颱風尼士達(9706)的每六小時之位置及強度**  
**SIX-HOURLY POSITION AND INTENSITY DATA OF**  
**TYPHOON NESTOR (9706)**

月份 Month	日期 Date	時間 (協調世界時) Time (UTC)	強度 Intensity	估計最低 中心氣壓 (百帕斯卡) Estimated minimum central pressure (hPa)	估計 最高風速 (米每秒) Estimated maximum surface winds (m/s)	北緯 Lat. °N	東經 Long. °E
六月 Jun	6	0000	T.D.	1006	13	10.0	156.7
		0600	T.D.	1006	13	10.1	155.4
		1200	T.D.	1006	13	10.2	154.2
		1800	T.D.	1002	16	10.4	153.1
	7	0000	T.D.	1002	16	10.9	152.1
		0600	T.D.	1002	16	11.6	151.4
		1200	T.S.	1000	18	12.2	150.9
		1800	T.S.	996	21	12.8	150.6
	8	0000	T.S.	996	21	13.4	150.3
		0600	T.S.	992	23	14.0	150.0
		1200	S.T.S.	990	25	14.4	149.9
		1800	S.T.S.	985	28	14.8	149.7
	9	0000	T.	975	33	15.2	149.5
		0600	T.	965	39	15.6	149.3
		1200	T.	955	41	16.0	149.1
		1800	T.	955	41	16.6	148.9
	10	0000	T.	950	43	17.2	148.5
		0600	T.	950	43	17.8	148.0
		1200	T.	950	43	18.3	147.5
		1800	T.	955	41	18.9	146.9
	11	0000	T.	955	41	19.5	146.1
		0600	T.	955	41	20.1	145.3
		1200	T.	950	43	20.7	144.5
		1800	T.	950	43	21.3	143.6
	12	0000	T.	950	43	22.0	142.8
		0600	T.	950	43	22.9	142.1
		1200	T.	955	41	23.9	141.7
		1800	T.	960	39	25.1	141.6
	13	0000	T.	965	36	26.4	141.6
		0600	T.	970	33	27.8	141.9
		1200	S.T.S.	975	31	29.6	143.0
		1800	S.T.S.	975	31	31.3	144.2
	14	0000	S.T.S.	980	28	33.1	146.0
		0600	S.T.S.	985	25	35.2	148.6

變為溫帶氣旋  
Became Extratropical

**颱風奧苻(9707)的每六小時之位置及強度**  
**SIX-HOURLY POSITION AND INTENSITY DATA OF**  
**TYPHOON OPAL (9707)**

月份 Month	日期 Date	時間 (協調世界時) Time (UTC)	強度 Intensity	估計最低 中心氣壓 (百帕斯卡) Estimated minimum central pressure (hPa)	估計 最高風速 (米每秒) Estimated maximum surface winds (m/s)	北緯 Lat. °N	東經 Long. °E
六月 Jun	14	1200	T.D.	1004	13	14.1	133.8
		1800	T.D.	1004	13	14.2	133.6
	15	0000	T.D.	1004	13	14.3	133.4
		0600	T.D.	1000	16	14.4	133.2
		1200	T.D.	1000	16	14.6	133.0
	16	1800	T.S.	998	18	14.8	132.9
		0000	T.S.	994	21	15.0	132.7
		0600	T.S.	990	23	15.3	132.6
		1200	S.T.S.	985	25	15.6	132.5
		1800	S.T.S.	980	28	16.0	132.5
	17	0000	S.T.S.	975	31	16.5	132.5
		0600	T.	970	33	17.2	132.6
		1200	T.	965	39	18.3	132.9
		1800	T.	960	39	19.5	133.3
	18	0000	T.	960	39	20.7	133.6
		0600	T.	960	39	22.3	133.7
		1200	T.	960	39	23.9	133.7
		1800	T.	960	39	25.6	133.7
	19	0000	T.	965	36	27.3	133.7
		0600	T.	970	33	28.9	133.6
		1200	T.	970	33	30.5	134.1
		1800	S.T.S.	975	31	32.2	134.9
	20	0000	S.T.S.	980	28	33.8	136.3
		0600	S.T.S.	985	25	36.0	138.7
1200		T.S.	990	23	38.4	141.5	
1800		T.S.	990	23	40.6	144.4	

變為溫帶氣旋  
Became Extratropical

**颱風彼德(9708)的每六小時之位置及強度**  
**SIX-HOURLY POSITION AND INTENSITY DATA OF**  
**TYPHOON PETER (9708)**

月份 Month	日期 Date	時間 (協調世界時) Time (UTC)	強度 Intensity	估計最低 中心氣壓 (百帕斯卡) Estimated minimum central pressure (hPa)	估計 最高風速 (米每秒) Estimated maximum surface winds (m/s)	北緯 Lat. °N	東經 Long. °E
六月 Jun	23	1200	T.D.	998	16	13.6	130.8
		1800	T.D.	998	16	14.0	130.0
	24	0000	T.S.	996	18	14.5	129.3
		0600	T.S.	996	18	15.2	128.7
		1200	T.S.	996	18	15.9	128.1
		1800	T.S.	994	21	16.7	127.7
	25	0000	T.S.	994	21	17.5	127.4
		0600	T.S.	994	21	18.3	127.2
		1200	T.S.	990	23	19.1	127.0
		1800	S.T.S.	985	25	19.9	126.8
	26	0000	S.T.S.	980	28	20.9	126.6
		0600	S.T.S.	975	31	22.1	126.5
		1200	T.	970	33	23.5	126.4
		1800	T.	970	33	24.9	126.4
	27	0000	T.	970	33	26.4	126.4
		0600	T.	970	33	28.4	126.6
		1200	T.	970	33	30.0	127.1
		1800	S.T.S.	975	31	31.4	128.2
	28	0000	S.T.S.	975	31	32.5	129.5
		0600	S.T.S.	980	28	34.0	132.9
		1200	S.T.S.	980	25	35.4	136.5
		1800	S.T.S.	980	25	37.0	140.6

變為溫帶氣旋  
Became Extratropical

**颱風露絲(9709)的每六小時之位置及強度**  
**SIX-HOURLY POSITION AND INTENSITY DATA OF**  
**TYPHOON ROSIE (9709)**

月份 Month	日期 Date	時間 (協調世界時) Time (UTC)	強度 Intensity	估計最低 中心氣壓 (百帕斯卡) Estimated minimum central pressure (hPa)	估計 最高風速 (米每秒) Estimated maximum surface winds (m/s)	北緯 Lat. °N	東經 Long. °E
七月 Jul	19	0000	T.D.	1002	13	11.1	138.1
		0600	T.D.	1002	13	11.7	137.9
		1200	T.D.	1000	16	12.3	137.6
		1800	T.S.	998	18	12.9	137.2
	20	0000	T.S.	994	21	13.4	136.8
		0600	T.S.	990	23	13.9	136.3
		1200	S.T.S.	985	25	14.4	135.8
		1800	S.T.S.	980	28	14.9	135.3
	21	0000	S.T.S.	975	31	15.4	134.7
		0600	S.T.S.	975	31	15.9	134.1
		1200	T.	970	33	16.4	133.6
		1800	T.	960	36	16.9	133.1
	22	0000	T.	950	41	17.4	132.6
		0600	T.	940	46	17.8	132.2
		1200	T.	925	51	18.2	132.0
		1800	T.	925	51	18.7	131.9
	23	0000	T.	925	51	19.2	131.9
		0600	T.	925	51	19.9	131.9
		1200	T.	925	51	20.6	132.0
		1800	T.	925	51	21.4	132.2
	24	0000	T.	935	49	22.4	132.4
		0600	T.	940	46	23.4	132.7
		1200	T.	945	43	24.6	133.1
		1800	T.	955	41	25.8	133.5
	25	0000	T.	955	41	27.0	133.9
		0600	T.	955	41	28.2	134.3
		1200	T.	955	41	29.5	134.7
		1800	T.	960	39	30.8	134.9
26	0000	T.	965	36	32.1	135.1	
	0600	T.	970	33	33.4	134.9	
	1200	S.T.S.	975	31	34.8	134.2	
	1800	S.T.S.	985	25	35.3	133.0	
27	0000	T.S.	990	23	35.3	132.7	
	0600	T.S.	992	21	35.7	132.9	
	1200	T.S.	994	18	35.9	133.1	
	1800	T.D.	996	16	36.0	133.3	

消散  
Dissipated

**熱帶風暴史葛(9710)的每六小時之位置及強|**  
**SIX-HOURLY POSITION AND INTENSITY DATA OF**  
**TROPICAL STORM SCOTT (9710)**

月份 Month	日期 Date	時間 (協調世界時) Time (UTC)	強度 Intensity	估計最低 中心氣壓 (百帕斯卡) Estimated minimum central pressure (hPa)	估計 最高風速 (米每秒) Estimated maximum surface winds (m/s)	北緯 Lat. °N	東經 Long. °E	
七月 Jul	28	0600	T.D.	998	16	23.6	155.6	
		1200	T.S.	996	18	23.9	155.6	
		1800	T.S.	996	18	24.3	155.6	
	29	0000	T.S.	992	21	24.8	155.7	
		0600	T.S.	990	23	25.5	155.9	
		1200	T.S.	990	23	26.1	156.2	
	30	1800	T.S.	990	23	26.7	156.7	
		0000	T.S.	990	23	27.4	157.4	
		0600	T.S.	990	23	28.1	158.2	
	31	1200	T.S.	990	23	28.8	159.0	
		1800	T.S.	994	21	29.4	159.8	
		0000	T.S.	994	21	30.0	160.6	
	八月 Aug	1	0600	T.S.	994	21	30.5	161.6
			1200	T.S.	994	21	30.8	163.0
			1800	T.S.	994	21	31.0	164.5
0000			T.S.	994	21	31.3	166.3	
0600			T.S.	994	21	31.7	168.1	
1200			T.S.	994	21	32.5	169.8	
1800			T.S.	994	21	33.6	171.0	

變為溫帶氣旋  
Became Extratropical

**颱風天娜(9711)的每六小時之位置及強度**  
**SIX-HOURLY POSITION AND INTENSITY DATA OF**  
**TYPHOON TINA (9711)**

月份 Month	日期 Date	時間 (協調世界時) Time (UTC)	強度 Intensity	估計最低 中心氣壓 (百帕斯卡) Estimated minimum central pressure (hPa)	估計 最高風速 (米每秒) Estimated maximum surface winds (m/s)	北緯 Lat. °N	東經 Long. °E
七月 Jul	30	1200	T.D.	1000	16	14.2	135.7
		1800	T.D.	1000	16	14.1	135.8
	31	0000	T.D.	1000	16	13.9	135.9
		0600	T.D.	1000	16	13.7	135.8
		1200	T.S.	998	18	13.6	135.6
八月 Aug	1	1800	T.S.	994	21	13.5	135.4
		0000	T.S.	994	21	13.4	135.1
	1	0600	T.S.	994	21	13.4	134.8
		1200	T.S.	990	23	13.4	134.4
		1800	T.S.	990	23	13.4	133.9
	2	0000	T.S.	990	23	13.5	133.4
		0600	T.S.	990	23	13.7	132.9
		1200	S.T.S.	985	25	13.9	132.4
	3	1800	S.T.S.	980	28	14.2	131.9
		0000	S.T.S.	980	28	14.5	131.4
		0600	S.T.S.	980	28	15.0	130.8
	3	1200	S.T.S.	975	31	15.6	130.2
		1800	S.T.S.	975	31	16.3	129.7
		0000	S.T.S.	975	31	17.1	129.1
	4	0600	S.T.S.	975	31	17.9	128.5
		1200	S.T.S.	975	31	18.7	127.9
		1800	S.T.S.	975	31	19.4	127.4
	5	0000	T.	970	33	20.1	127.0
		0600	T.	965	36	20.8	126.7
		1200	T.	960	39	21.5	126.4
	5	1800	T.	955	41	22.1	126.3
		0000	T.	955	41	23.0	126.3
		0600	T.	955	41	23.9	126.4
	6	1200	T.	955	41	24.8	126.4
		1800	T.	955	41	25.7	126.4
		0000	T.	960	39	26.6	126.4
	6	0600	T.	960	39	27.5	126.4
1200		T.	960	39	28.4	126.4	
1800		T.	965	36	29.2	126.4	
7	0000	T.	970	33	30.2	126.4	
	0600	S.T.S.	975	31	31.3	126.4	
	1200	S.T.S.	980	28	32.4	126.4	
7	1800	S.T.S.	980	28	33.8	127.0	
	0000	S.T.S.	985	25	35.4	128.8	
	0600	T.S.	990	23	37.5	131.4	

變為溫帶氣旋  
Became Extratropical

**颱風維克托(9712)的每六小時之位置及強度**  
**SIX-HOURLY POSITION AND INTENSITY DATA OF**  
**TYPHOON VICTOR (9712)**

月份 Month	日期 Date	時間 (協調世界時) Time (UTC)	強度 Intensity	估計最低 中心氣壓 (百帕斯卡) Estimated minimum central pressure (hPa)	估計 最高風速 (米每秒) Estimated maximum surface winds (m/s)	北緯 Lat. °N	東經 Long. °E
七月 Jul	31	0000	T.D.	998	16	17.0	114.2
		0600	T.D.	998	16	17.1	113.7
		1200	T.D.	996	16	16.8	113.2
		1800	T.S.	994	18	16.8	113.7
八月 Aug	1	0000	T.S.	992	21	17.1	114.0
		0600	T.S.	990	23	17.9	114.1
		1200	S.T.S.	985	25	18.7	114.1
		1800	S.T.S.	980	28	19.5	114.1
	2	0000	S.T.S.	975	31	20.3	114.1
		( 0300	T.	970	33	20.7	114.1 )
		0600	T.	970	33	21.2	114.1
		1200	S.T.S.	970	31	22.3	114.1
	3	1800	S.T.S.	980	25	23.5	113.9
		0000	T.S.	990	18	25.1	113.7
		0600	T.D.	994	13	26.8	113.9

消散  
Dissipated

**颱風芸妮(9713)的每六小時之位置及強度**  
**SIX-HOURLY POSITION AND INTENSITY DATA OF**  
**TYPHOON WINNIE (9713)**

月份 Month	日期 Date	時間 (協調世界時) Time (UTC)	強度 Intensity	估計最低 中心氣壓 (百帕斯卡) Estimated minimum central pressure (hPa)	估計 最高風速 (米每秒) Estimated maximum surface winds (m/s)	北緯 Lat. °N	東經 Long. °E
八月 Aug	8	1200	T.D.	1000	16	12.8	157.3
		1800	T.D.	1000	16	13.6	156.6
	9	0000	T.D.	1000	16	14.2	155.9
		0600	T.D.	1000	16	14.6	155.4
	10	1200	T.S.	998	18	15.0	155.0
		1800	T.S.	994	21	15.3	154.4
		0000	T.S.	990	23	15.7	153.6
	11	0600	S.T.S.	985	25	15.9	152.8
		1200	S.T.S.	980	28	16.0	151.9
		1800	S.T.S.	975	31	16.1	151.0
	12	0000	T.	970	33	16.2	150.2
		0600	T.	965	36	16.4	149.5
		1200	T.	960	39	16.6	148.8
	13	1800	T.	955	41	16.8	148.0
		0000	T.	950	43	17.2	147.0
		0600	T.	940	46	17.6	146.0
	14	1200	T.	930	51	18.0	145.0
		1800	T.	930	51	18.5	144.0
		0000	T.	930	51	19.0	143.0
	15	0600	T.	935	49	19.6	142.1
		1200	T.	940	46	20.1	141.3
		1800	T.	940	46	20.6	140.4
	16	0000	T.	940	46	21.1	139.6
		0600	T.	940	46	21.5	138.7
		1200	T.	940	46	22.0	137.8
	17	1800	T.	940	46	22.4	136.8
		0000	T.	940	46	22.7	135.8
		0600	T.	940	46	23.0	134.9
	18	1200	T.	940	46	23.3	134.0
		1800	T.	940	46	23.5	133.1
		0000	T.	950	43	23.7	132.2
	19	0600	T.	950	43	23.9	131.2
		1200	T.	950	43	24.1	130.3
		1800	T.	950	43	24.3	129.3
	20	0000	T.	950	43	24.6	128.3
		0600	T.	950	43	25.0	127.2
1200		T.	950	43	25.5	126.1	
21	1800	T.	950	43	26.0	125.0	
	0000	T.	950	43	26.6	124.0	
	0600	T.	955	41	27.2	123.0	
22	1200	T.	955	41	28.0	121.8	
	1800	T.	960	39	29.0	120.3	

颱風芸妮(9713)的每六小時之位置及強度(續)  
**SIX-HOURLY POSITION AND INTENSITY DATA OF  
 TYPHOON WINNIE (9713) (Cont.)**

日期 Date	時間 (協調世界時) Time (UTC)	強度 Intensity	估計最低 中心氣壓 (百帕斯卡) Estimated minimum central pressure (hPa)	估計 最高風速 (米每秒) Estimated maximum surface winds (m/s)	北緯 Lat. °N	東經 Long. °E
19	0000	T.	970	33	30.0	119.2
	0600	S.T.S.	980	28	31.0	118.4
	1200	S.T.S.	985	25	32.2	118.0
	1800	T.S.	990	23	33.6	117.9
20	0000	T.S.	990	23	35.0	118.0
	0600	T.S.	990	23	36.8	118.6

變為溫帶氣旋  
 Became Extratropical

**強烈熱帶風暴尤里(9714)的每六小時之位置及強度**  
**SIX-HOURLY POSITION AND INTENSITY DATA OF**  
**SEVERE TROPICAL STORM YULE (9714)**

月份 Month	日期 Date	時間 (協調世界時) Time (UTC)	強度 Intensity	估計最低 中心氣壓 (百帕斯卡) Estimated minimum central pressure (hPa)	估計 最高風速 (米每秒) Estimated maximum surface winds (m/s)	北緯 Lat. °N	東經 Long. °E
八月 Aug	16	1800	T.D.	1002	16	10.3	164.7
		17	T.D.	1002	16	11.1	165.2
	17	0600	T.D.	1002	16	12.0	165.6
		1200	T.D.	1002	16	12.8	166.0
		1800	T.D.	1002	16	13.6	166.3
		0000	T.D.	1002	16	14.4	166.6
		0600	T.D.	1002	16	15.2	166.9
		1200	T.D.	1002	16	15.8	167.0
	18	1800	T.D.	1002	16	16.2	167.1
		0000	T.D.	1002	16	16.7	167.3
		0600	T.D.	1002	16	17.2	167.4
		1200	T.S.	998	18	17.6	167.5
	19	1800	T.S.	994	21	18.2	167.6
		0000	T.S.	990	23	18.8	167.7
		0600	T.S.	990	23	19.4	167.8
		1200	S.T.S.	985	25	20.2	167.9
	20	1800	S.T.S.	985	25	21.0	168.0
		0000	S.T.S.	980	28	22.0	168.1
		0600	S.T.S.	980	28	23.1	168.3
		1200	S.T.S.	980	28	24.1	168.6
	21	1800	S.T.S.	980	28	25.4	169.1
		0000	S.T.S.	985	25	27.3	170.1
		0600	S.T.S.	985	25	29.3	171.2
		1200	S.T.S.	985	25	31.8	172.4
22	1800	S.T.S.	985	25	34.8	173.3	
	0000	T.S.	990	23	38.4	172.5	

變為溫帶氣旋  
Became Extratropical

**颱風思蒂(9715)的每六小時之位置及強度**  
**SIX-HOURLY POSITION AND INTENSITY DATA OF**  
**TYPHOON ZITA (9715)**

月份 Month	日期 Date	時間 (協調世界時) Time (UTC)	強度 Intensity	估計最低 中心氣壓 (百帕斯卡) Estimated minimum central pressure (hPa)	估計 最高風速 (米每秒) Estimated maximum surface winds (m/s)	北緯 Lat. °N	東經 Long. °E
八月 Aug	20	( 1500	T.D.	992	16	18.9	116.9)
		1800	T.D.	992	16	19.1	116.5
	21	0000	T.S.	990	21	19.6	115.6
		0600	S.T.S.	985	25	20.0	114.5
		1200	S.T.S.	980	28	20.1	113.4
		1800	S.T.S.	975	31	20.2	112.3
		22	0000	T.	970	33	20.5
	0600		T.	970	33	20.9	110.1
	1200		T.	970	33	21.1	108.9
	23	1800	S.T.S.	980	28	21.2	107.8
		0000	T.S.	985	23	21.2	106.7
	0600		T.S.	990	18	21.2	105.8

消散  
Dissipated

**颱風艾碧(9716)的每六小時之位置及強**  
**SIX-HOURLY POSITION AND INTENSITY DATA OF**  
**TYPHOON AMBER (9716)**

月份 Month	日期 Date	時間 (協調世界時) Time (UTC)	強度 Intensity	估計最低 中心氣壓 (百帕斯卡) Estimated minimum central pressure (hPa)	估計 最高風速 (米每秒) Estimated maximum surface winds (m/s)	北緯 Lat. °N	東經 Long. °E
八月 Aug	21	0000	T.D.	1004	13	13.4	131.4
		0600	T.D.	1004	13	13.7	131.6
		1200	T.D.	1000	16	14.0	131.8
		1800	T.S.	998	18	14.3	131.8
	22	0000	T.S.	994	21	14.6	131.8
		0600	T.S.	990	23	14.9	131.8
		1200	S.T.S.	985	25	15.2	131.7
		1800	S.T.S.	985	25	15.5	131.5
	23	0000	S.T.S.	985	25	15.8	131.4
		0600	S.T.S.	980	28	16.1	131.1
		1200	S.T.S.	975	31	16.4	130.8
		1800	T.	970	33	16.6	130.5
	24	0000	T.	965	36	16.9	130.1
		0600	T.	960	39	17.1	129.7
		1200	T.	960	39	17.2	129.3
		1800	T.	950	41	17.3	129.0
	25	0000	T.	950	41	17.4	128.7
		0600	T.	955	39	17.5	128.4
		1200	T.	955	39	17.7	128.1
		1800	T.	955	39	17.8	127.8
	26	0000	T.	955	39	18.0	127.5
		0600	T.	955	39	18.2	127.2
		1200	T.	955	39	18.4	126.9
		1800	T.	955	39	18.6	126.6
	27	0000	T.	955	39	19.0	126.1
		0600	T.	950	41	19.4	125.6
		1200	T.	945	43	19.8	125.0
		1800	T.	945	43	20.3	124.4
	28	0000	T.	950	41	20.9	123.5
		0600	T.	955	39	21.5	123.0
1200		T.	960	36	22.2	122.4	
1800		T.	965	33	23.2	121.4	
29	0000	S.T.S.	970	31	24.1	120.5	
	0600	S.T.S.	975	28	25.2	119.8	
	1200	T.S.	985	23	26.3	119.3	
	1800	T.S.	995	18	27.5	118.3	
30	0000	T.D.	1000	13	28.1	116.9	

消散  
Dissipated

**颱風秉格(9718)的每六小時之位置及強度**  
**SIX-HOURLY POSITION AND INTENSITY DATA OF**  
**TYPHOON BING (9718)**

月份 Month	日期 Date	時間 (協調世界時) Time (UTC)	強度 Intensity	估計最低 中心氣壓 (百帕斯卡) Estimated minimum central pressure (hPa)	估計 最高風速 (米每秒) Estimated maximum surface winds (m/s)	北緯 Lat. °N	東經 Long. °E	
八月 Aug	26	0600	T.D.	1005	13	11.0	159.0	
		1200	T.D.	1005	13	11.0	157.0	
		1800	T.D.	1005	13	11.0	155.0	
	27	0000	T.D.	1005	13	11.5	153.4	
		0600	T.D.	1005	13	11.9	152.5	
		1200	T.D.	1005	13	12.0	151.6	
	1800	T.D.	1005	13	12.0	150.5		
		28	0000	T.D.	1005	13	12.1	149.5
			0600	T.D.	1005	13	12.3	148.5
	1200		T.D.	1000	16	12.6	147.5	
	1800	T.S.	998	18	13.0	146.5		
		29	0000	T.S.	998	18	13.5	145.5
			0600	T.S.	998	18	14.0	144.2
	1200		T.S.	994	21	14.6	142.4	
	1800	T.S.	990	23	14.9	140.8		
		30	0000	T.S.	990	23	15.4	139.4
			0600	T.S.	990	23	16.0	138.7
	1200		S.T.S.	985	25	16.6	138.4	
	1800	S.T.S.	980	28	17.2	138.3		
		31	0000	S.T.S.	975	31	17.9	138.3
			0600	T.	970	33	18.8	138.5
1200	T.		965	36	20.1	138.7		
1800	T.	960	39	21.3	139.0			
	九月 Sep	1	0000	T.	955	41	22.6	139.0
			0600	T.	940	46	23.9	139.0
1200			T.	940	46	25.1	138.9	
1800	T.	940	46	26.2	138.6			
	2	0000	T.	950	43	27.1	138.3	
		0600	T.	950	43	28.0	138.3	
1200		T.	950	43	28.9	138.7		
1800	T.	950	43	30.0	139.4			
	3	0000	T.	955	41	31.1	140.5	
		0600	T.	960	39	32.3	142.0	
1200		T.	960	39	33.5	144.1		
1800	T.	960	39	35.0	146.8			
	4	0000	T.	965	36	36.7	149.8	
		0600	T.	970	33	38.5	153.1	
1200		S.T.S.	975	31	40.3	156.6		

變為溫帶氣旋  
Became Extratropical

**熱帶風暴卡絲(9717)的每六小時之位置及強度**  
**SIX-HOURLY POSITION AND INTENSITY DATA OF**  
**TROPICAL STORM CASS (9717)**

月份 Month	日期 Date	時間 (協調世界時) Time (UTC)	強度 Intensity	估計最低 中心氣壓 (百帕斯卡) Estimated minimum central pressure (hPa)	估計 最高風速 (米每秒) Estimated maximum surface winds (m/s)	北緯 Lat. °N	東經 Long. °E
八月 Aug	27	0600	T.D.	1002	13	18.9	113.9
		1200	T.D.	1002	13	18.6	114.0
		1800	T.D.	1002	13	18.3	114.1
	28	0000	T.D.	1000	16	18.0	114.3
		0600	T.S.	998	18	17.7	114.5
		1200	T.S.	998	18	17.5	114.9
	29	1800	T.S.	998	18	17.3	115.4
		0000	T.S.	998	18	17.3	116.0
		0600	T.S.	998	18	17.6	116.8
	30	1200	T.S.	996	21	18.4	117.5
		1800	T.S.	996	21	19.6	118.0
		0000	T.S.	996	21	22.0	118.3
		0600	T.S.	996	21	24.7	118.2
		1200	T.D.	1000	16	25.2	118.2

消散  
Dissipated

**颱風奧利華(9719)的每六小時之位置及強度**  
**SIX-HOURLY POSITION AND INTENSITY DATA OF**  
**TYPHOON OLIWA (9719)**

月份 Month	日期 Date	時間 (協調世界時) Time (UTC)	強度 Intensity	估計最低	估計	北緯 Lat. °N	東經 Long. °E
				中心氣壓 (百帕斯卡) Estimated minimum central pressure (hPa)	最高風速 (米每秒) Estimated maximum surface winds (m/s)		
九月 Sep	4	1200	T.D.	1000	16	14.1	179.8
		1800	T.D.	1000	16	14.3	178.5
	5	0000	T.D.	1000	16	14.4	176.9
		0600	T.D.	1000	16	14.5	175.2
	6	1200	T.S.	998	18	14.7	173.5
		1800	T.S.	998	18	15.0	172.0
		0000	T.S.	994	21	15.3	170.8
		0600	T.S.	994	21	15.6	169.6
		1200	T.S.	990	23	16.2	168.2
		1800	S.T.S.	985	25	16.8	166.6
	7	0000	S.T.S.	985	25	17.3	165.1
		0600	S.T.S.	985	25	17.7	164.2
		1200	S.T.S.	980	28	18.0	163.6
		1800	S.T.S.	980	28	18.1	163.0
	8	0000	S.T.S.	980	28	18.1	162.4
		0600	S.T.S.	980	28	18.1	161.5
		1200	S.T.S.	975	31	18.1	160.2
		1800	T.	970	33	18.1	158.8
	9	0000	T.	965	36	18.1	157.4
		0600	T.	960	39	18.1	156.2
		1200	T.	955	41	18.2	155.0
		1800	T.	950	43	18.4	153.7
	10	0000	T.	945	46	18.6	152.3
		0600	T.	935	49	18.8	150.8
		1200	T.	930	51	19.0	149.4
		1800	T.	920	54	19.2	148.0
	11	0000	T.	920	54	19.5	146.6
		0600	T.	920	54	19.9	145.3
		1200	T.	930	51	20.3	144.0
		1800	T.	935	49	20.7	142.7
12	0000	T.	940	46	21.1	141.5	
	0600	T.	940	46	21.7	140.2	
	1200	T.	940	46	22.5	138.8	
	1800	T.	940	46	23.3	137.4	
13	0000	T.	940	46	24.1	136.2	
	0600	T.	945	43	25.0	135.0	
	1200	T.	945	43	25.9	133.9	
	1800	T.	950	41	26.7	132.8	

**颱風奧利華(9719)的每六小時之位置及強度(續)**  
**SIX-HOURLY POSITION AND INTENSITY DATA OF**  
**TYPHOON OLIWA (9719) (cont.)**

月份 Month	日期 Date	時間 (協調世界時) Time (UTC)	強度 Intensity	估計最低 中心氣壓 (百帕斯卡) Estimated minimum central pressure (hPa)	估計 最高風速 (米每秒) Estimated maximum surface winds (m/s)	北緯 Lat. °N	東經 Long. °E
九月 Sep	14	0000	T.	950	41	27.4	131.6
		0600	T.	950	41	28.0	130.6
		1200	T.	950	41	28.4	130.1
		1800	T.	950	41	28.7	129.8
	15	0000	T.	950	41	29.0	129.6
		0600	T.	950	41	29.4	129.5
		1200	T.	950	41	29.9	129.6
		1800	T.	955	39	30.5	129.8
	16	0000	T.	960	36	31.5	130.4
		0600	T.	970	33	32.9	131.3
		1200	S.T.S.	980	28	34.1	132.5
		1800	T.S.	990	23	35.2	134.4

變為溫帶氣旋  
Became Extratropical

**颱風大衛(9720)的每六小時之位置及強度**  
**SIX-HOURLY POSITION AND INTENSITY DATA OF**  
**TYPHOON DAVID (9720)**

月份 Month	日期 Date	時間 (協調世界時) Time (UTC)	強度 Intensity	估計最低 中心氣壓 (百帕斯卡) Estimated minimum central pressure (hPa)	估計 最高風速 (米每秒) Estimated maximum surface winds (m/s)	北緯 Lat. °N	東經 Long. °E
7月 Sep	12	0000	T.D.	1000	16	13.2	169.5
		0600	T.D.	1000	16	13.8	168.5
		1200	T.S.	998	18	14.3	167.6
		1800	T.S.	994	21	14.6	166.8
	13	0000	T.S.	990	23	14.9	166.1
		0600	S.T.S.	985	25	15.2	165.4
		1200	S.T.S.	980	28	15.6	164.8
		1800	S.T.S.	975	31	16.0	164.2
	14	0000	S.T.S.	975	31	16.7	163.6
		0600	T.	970	33	17.8	162.9
		1200	T.	965	36	18.9	162.0
		1800	T.	965	36	20.1	160.6
	15	0000	T.	955	39	21.1	159.0
		0600	T.	955	39	21.9	157.7
		1200	T.	950	41	22.5	156.4
		1800	T.	950	41	23.0	155.2
	16	0000	T.	950	41	23.5	154.0
		0600	T.	955	39	23.9	152.7
		1200	T.	955	39	24.4	151.2
		1800	T.	955	39	24.8	149.6
	17	0000	T.	955	39	25.2	148.0
		0600	T.	955	39	25.7	146.5
		1200	T.	955	39	26.3	145.0
		1800	T.	955	39	27.1	143.7
	18	0000	T.	955	39	27.9	142.6
		0600	T.	955	39	29.1	141.9
		1200	T.	965	36	30.5	141.6
1800		T.	965	36	32.1	141.7	
19	0000	T.	965	36	33.9	142.4	
	0600	T.	970	33	36.0	144.1	
	1200	S.T.S.	975	31	38.6	147.2	

變為溫帶氣旋  
Became Extratropical

**熱帶低氣壓艾娜的每六小時之位置及強度**  
**SIX-HOURLY POSITION AND INTENSITY DATA OF**  
**TROPICAL DEPRESSION ELLA**

月份 Month	日期 Date	時間 (協調世界時) Time (UTC)	強度 Intensity	估計最低 中心氣壓 (百帕斯卡) Estimated minimum central pressure (hPa)	估計 最高風速 (米每秒) Estimated maximum surface winds (m/s)	北緯 Lat. °N	東經 Long. °E
九月 Sep	21	0600	T.D.	1006	16	24.9	169.8
		1200	T.D.	1006	16	25.6	167.0
		1800	T.D.	1006	16	26.1	164.8
	22	0000	T.D.	1006	16	26.3	162.6
		0600	T.D.	1006	16	26.4	160.4
		1200	T.D.	1006	16	26.8	158.6
	23	1800	T.D.	1006	16	27.5	157.4
		0000	T.D.	1006	16	28.2	156.7

消散  
Dissipated

**強烈熱帶風暴斐歷士(9721)的每六小時之位置及強**  
**SIX-HOURLY POSITION AND INTENSITY DATA OF**  
**SEVERE TROPICAL STORM FRITZ (9721)**

月份 Month	日期 Date	時間 (協調世界時) Time (UTC)	強度 Intensity	估計最低 中心氣壓 (百帕斯卡) Estimated minimum central pressure (hPa)	估計 最高風速 (米每秒) Estimated maximum surface winds (m/s)	北緯 Lat. °N	東經 Long. °E
九月 Sep	23	0000	T.D.	1000	16	16.0	111.1
		0600	T.D.	1000	16	16.1	111.2
		1200	T.S.	998	18	16.0	111.3
		1800	T.S.	992	21	15.9	111.2
	24	0000	T.S.	990	23	15.7	110.9
		0600	S.T.S.	985	25	15.7	110.4
		1200	S.T.S.	980	28	15.7	109.9
		1800	S.T.S.	975	31	15.7	109.4
	25	0000	S.T.S.	980	28	15.7	108.9
		0600	S.T.S.	985	25	15.6	108.3
		1200	T.S.	992	21	15.5	107.6
		1800	T.D.	1000	16	15.4	106.8

消散  
Dissipated

**颱風珍芝(9722)的每六小時之位置及強度**  
**SIX-HOURLY POSITION AND INTENSITY DATA OF**  
**TYPHOON GINGER (9722)**

月份 Month	日期 Date	時間 (協調世界時) Time (UTC)	強度 Intensity	估計最低 中心氣壓 (百帕斯卡) Estimated minimum central pressure (hPa)	估計 最高風速 (米每秒) Estimated maximum surface winds (m/s)	北緯 Lat. °N	東經 Long. °E	
九月 Sep	23	1800	T.D.	1004	16	12.8	165.0	
		24	T.D.	1004	16	13.4	164.3	
	24	0600	T.D.	1004	16	14.0	163.6	
		1200	T.S.	998	18	14.7	163.0	
		1800	T.S.	994	21	15.6	162.5	
		25	0000	T.S.	990	23	16.7	162.2
			0600	S.T.S.	985	25	18.0	161.8
			1200	S.T.S.	980	28	19.2	161.1
	26	1800	S.T.S.	975	31	19.9	160.7	
		0000	T.	965	33	20.2	160.5	
		0600	T.	960	36	20.5	160.3	
		1200	T.	955	39	20.8	160.1	
		1800	T.	950	41	21.2	159.8	
		27	0000	T.	945	43	21.7	159.3
	0600		T.	940	46	22.3	158.8	
	1200		T.	935	49	22.9	158.3	
	1800		T.	935	49	23.6	158.0	
	28		0000	T.	940	46	24.5	157.7
			0600	T.	940	46	25.6	157.6
		1200	T.	945	43	26.7	157.6	
		1800	T.	950	41	28.1	157.9	
		29	0000	T.	955	39	29.6	158.6
			0600	T.	960	36	31.3	159.9
	1200		T.	965	33	33.5	161.9	
1800	S.T.S.		970	31	36.4	164.6		
30	0000		S.T.S.	975	28	39.7	168.1	
	0600		S.T.S.	980	25	43.4	173.2	

變為溫帶氣旋  
Became Extratropical

**熱帶低氣壓漢奇的每六小時之位置及強**  
**SIX-HOURLY POSITION AND INTENSITY DATA OF**  
**TROPICAL DEPRESSION HANK**

月份 Month	日期 Date	時間 (協調世界時) Time (UTC)	強度 Intensity	估計最低 中心氣壓 (百帕斯卡) Estimated minimum central pressure (hPa)	估計 最高風速 (米每秒) Estimated maximum surface winds (m/s)	北緯 Lat. °N	東經 Long. °E	
十月	Oct	3	0000	T.D.	1006	16	14.7	112.2
			0600	T.D.	1006	16	14.7	111.4
			1200	T.D.	1008	13	14.8	110.6
			1800	T.D.	1008	13	15.0	109.8

消散  
Dissipated

颱風艾雲(9723)的每六小時之位置及強度  
SIX-HOURLY POSITION AND INTENSITY DATA OF  
TYPHOON IVAN (9723)

月份 Month	日期 Date	時間 (協調世界時) Time (UTC)	強度 Intensity	估計最低 中心氣壓 (百帕斯卡) Estimated minimum central pressure (hPa)	估計 最高風速 (米每秒) Estimated maximum surface winds (m/s)	北緯 Lat. °N	東經 Long. °E	
十月 Oct	13	1800	T.D.	1000	16	11.2	150.1	
		14	0000	T.D.	1000	16	11.8	148.5
			0600	T.D.	1000	16	12.1	146.8
			1200	T.D.	1000	16	12.3	145.1
	1800		T.S.	996	18	12.6	143.6	
	15	0000	T.S.	996	18	13.0	142.2	
		0600	T.S.	992	21	13.5	141.0	
		1200	T.S.	990	23	13.8	140.0	
		1800	S.T.S.	985	25	14.1	139.0	
	16	0000	S.T.S.	980	28	14.3	137.6	
		0600	S.T.S.	975	31	14.4	136.1	
		1200	T.	970	33	14.5	134.6	
		1800	T.	965	36	14.5	133.2	
	17	0000	T.	955	41	14.5	131.9	
		0600	T.	945	46	14.5	130.6	
		1200	T.	930	51	14.5	129.4	
		1800	T.	930	51	14.6	128.3	
	18	0000	T.	930	51	14.8	127.2	
		0600	T.	940	49	15.1	126.3	
		1200	T.	940	49	15.5	125.5	
		1800	T.	940	49	16.0	124.7	
	19	0000	T.	940	49	16.6	123.9	
		0600	T.	945	46	17.1	123.3	
		1200	T.	950	43	17.6	122.7	
		1800	T.	955	41	18.0	122.3	
	20	0000	T.	960	39	18.3	122.1	
		0600	T.	965	36	18.6	122.0	
		1200	T.	970	33	18.9	122.0	
		1800	T.	970	33	19.2	122.3	
	21	0000	S.T.S.	975	31	19.6	123.0	
		0600	S.T.S.	980	28	19.9	123.8	
		1200	S.T.S.	985	25	20.1	124.7	
		1800	S.T.S.	985	25	20.3	125.6	
	22	0000	T.S.	990	23	20.7	126.4	
		0600	T.S.	990	23	21.2	127.0	
		1200	T.S.	990	23	21.8	127.6	
		1800	T.S.	990	23	22.6	128.3	
	23	0000	T.S.	990	23	23.4	129.2	
		0600	T.S.	990	23	24.1	130.1	
		1200	T.S.	990	23	24.8	131.0	
		1800	T.S.	990	23	25.4	132.0	
	24	0000	T.S.	990	23	26.0	133.2	
		0600	T.S.	990	23	26.7	134.7	

變為溫帶氣旋  
Became Extratropical

**颱風鍾茵(9724)的每六小時之位置及強度**  
**SIX-HOURLY POSITION AND INTENSITY DATA OF**  
**TYPHOON JOAN (9724)**

月份 Month	日期 Date	時間 (協調世界時) Time (UTC)	強度 Intensity	估計最低 中心氣壓 (百帕斯卡) Estimated minimum central pressure (hPa)	估計 最高風速 (米每秒) Estimated maximum surface winds (m/s)	北緯 Lat. °N	東經 Long. °E
十月 Oct	13	1800	T.D.	1002	16	12.4	166.8
		14	T.D.	1002	16	12.7	165.5
	14	0600	T.D.	1002	16	12.9	164.4
		1200	T.S.	998	18	13.1	163.5
		1800	T.S.	998	18	13.2	162.6
		0000	T.S.	994	21	13.3	161.7
		0600	T.S.	990	23	13.4	160.7
	15	1200	S.T.S.	985	25	13.5	159.6
		1800	S.T.S.	980	28	13.5	158.5
		0000	T.	970	33	13.6	157.3
		0600	T.	965	36	13.7	156.0
	16	1200	T.	960	39	13.9	154.7
		1800	T.	955	41	14.0	153.3
		0000	T.	950	43	14.2	151.8
		0600	T.	945	46	14.5	150.3
	17	1200	T.	940	49	14.9	148.7
		1800	T.	930	51	15.4	147.2
		0000	T.	935	49	15.9	145.8
		0600	T.	935	49	16.5	144.4
	18	1200	T.	935	49	17.0	143.2
		1800	T.	935	49	17.5	142.0
		0000	T.	935	49	18.0	140.8
		0600	T.	940	46	18.5	139.7
	19	1200	T.	940	46	19.0	138.8
1800		T.	940	46	19.5	138.1	
0000		T.	940	46	20.1	137.5	
0600		T.	940	46	20.7	137.0	
20	1200	T.	940	46	21.4	136.7	
	1800	T.	940	46	22.2	136.6	
	0000	T.	940	46	23.1	136.9	
	0600	T.	945	43	24.0	137.3	
21	1200	T.	945	43	25.0	138.1	
	1800	T.	945	41	26.0	139.3	
	0000	T.	950	39	27.1	140.9	
	0600	T.	955	36	27.9	142.9	
22	1200	T.	960	33	28.4	145.2	
	1800	S.T.S.	965	31	28.9	147.5	
	0000	S.T.S.	970	28	29.2	150.0	
	0600	S.T.S.	975	25	29.5	152.5	
23	1200	T.S.	980	23	29.8	155.3	

變為溫帶氣旋  
Became Extratropical

颱風祈輔(9725)的每六小時之位置及強度  
SIX-HOURLY POSITION AND INTENSITY DATA OF  
TYPHOON KEITH (9725)

月份 Month	日期 Date	時間 (協調世界時) Time (UTC)	強度 Intensity	估計最低 中心氣壓 (百帕斯卡) Estimated minimum central pressure (hPa)	估計 最高風速 (米每秒) Estimated maximum surface winds (m/s)	北緯 Lat. °N	東經 Long. °E
十月 Oct	28	0000	T.D.	1000	16	7.1	167.3
		0600	T.D.	1000	16	7.1	166.8
		1200	T.D.	1000	16	7.1	166.2
		1800	T.D.	1000	16	7.0	165.5
	29	0000	T.D.	1000	16	6.7	164.8
		0600	T.D.	1000	16	6.7	164.0
		1200	T.S.	998	18	6.8	163.4
		1800	T.S.	998	18	7.1	162.6
	30	0000	T.S.	994	21	7.6	161.5
		0600	T.S.	990	23	8.1	160.5
		1200	S.T.S.	985	25	8.3	159.6
		1800	S.T.S.	980	28	8.5	158.7
	31	0000	T.	970	33	8.8	157.6
		0600	T.	965	36	9.1	156.7
		1200	T.	960	39	9.7	155.9
1800		T.	960	39	10.6	154.6	
十一月 Nov	1	0000	T.	950	43	11.3	153.1
		0600	T.	945	46	12.0	151.8
		1200	T.	930	51	12.7	150.2
		1800	T.	930	51	13.3	148.8
	2	0000	T.	930	51	13.9	147.2
		0600	T.	920	57	14.4	145.7
		1200	T.	920	57	14.8	144.4
		1800	T.	920	57	15.1	143.2
	3	0000	T.	920	57	15.4	141.9
		0600	T.	930	51	15.6	140.6
		1200	T.	930	51	15.7	139.3
		1800	T.	940	46	15.9	138.0
	4	0000	T.	945	43	16.1	137.1
		0600	T.	945	43	16.5	136.3
		1200	T.	945	43	16.9	135.6
		1800	T.	945	43	17.4	135.0
	5	0000	T.	950	41	17.7	134.8
		0600	T.	950	41	18.3	134.9
		1200	T.	950	41	18.8	135.1
		1800	T.	960	36	19.6	135.6
	6	0000	T.	960	36	20.3	136.1
		0600	T.	970	33	21.2	136.8
		1200	T.	970	33	22.1	137.5
		1800	T.	970	33	23.1	138.4
	7	0000	T.	970	33	24.3	139.7
		0600	T.	970	33	25.5	141.2
		1200	T.	970	33	26.8	143.2
		1800	T.	970	33	28.0	145.6
	8	0000	S.T.S.	980	28	28.8	148.1
		0600	T.S.	990	23	29.1	152.3

變為溫帶氣旋  
Became Extratropical

**強烈熱帶風暴蓮達(9726)的每六小時之位置及強度**  
**SIX-HOURLY POSITION AND INTENSITY DATA OF**  
**SEVERE TROPICAL STORM LINDA (9726)**

月份 Month	日期 Date	時間 (協調世界時) Time (UTC)	強度 Intensity	估計最低 中心氣壓 (百帕斯卡) Estimated minimum central pressure (hPa)	估計 最高風速 (米每秒) Estimated maximum surface winds (m/s)	北緯 Lat. °N	東經 Long. °E
十月 Oct	31	1800	T.D.	1000	16	7.3	114.2
十一月 Nov	1	0000	T.D.	1000	16	7.3	113.1
		0600	T.S.	998	18	7.7	111.7
		1200	T.S.	994	21	8.3	110.4
		1800	T.S.	990	23	8.7	109.0
	2	0000	S.T.S.	985	25	8.9	107.6
		0600	S.T.S.	985	25	9.0	106.2
		1200	T.S.	990	23	9.0	104.7
		1800	T.S.	990	23	9.1	103.6
	3	0000	T.S.	990	23	9.5	102.7
		0600	T.S.	990	23	10.1	101.9
		1200	T.S.	994	21	11.1	101.2
		1800	T.S.	998	18	12.0	100.5
	4	0000	T.D.	1000	16	12.6	99.6
		0600	T.D.	1000	16	13.0	98.4
		1200	T.D.	1000	16	13.4	97.2
		1800	T.D.	1000	16	13.7	96.2
	5	0000	T.D.	1000	16	14.0	95.2
		0600	T.D.	1000	16	14.2	94.4
		1200	T.D.	1000	16	14.3	93.9
		1800	T.D.	1000	16	14.5	93.4
	6	0000	T.D.	1000	16	14.6	92.9
		0600	T.D.	1000	16	14.7	92.3
		1200	T.D.	1000	16	14.9	91.8
		1800	T.D.	1000	16	15.0	91.3
	7	0000	T.D.	1000	16	15.1	90.8

消散  
Dissipated

**熱帶風暴莫特(9727)的每六小時之位置及強度**  
**SIX-HOURLY POSITION AND INTENSITY DATA OF**  
**TROPICAL STORM MORT (9727)**

月份 Month	日期 Date	時間 (協調世界時) Time (UTC)	強度 Intensity	估計最低 中心氣壓 (百帕斯卡) Estimated minimum central pressure (hPa)	估計 最高風速 (米每秒) Estimated maximum surface winds (m/s)	北緯 Lat. °N	東經 Long. °E	
十一月 Nov	11	0600	T.D.	1000	16	11.9	138.7	
		1200	T.D.	1000	16	12.2	138.0	
		1800	T.S.	998	18	12.4	137.0	
	12	0000	T.S.	994	21	12.5	135.9	
		0600	T.S.	994	21	12.8	135.0	
		1200	T.S.	994	21	13.1	134.0	
	13	1800	T.S.	990	23	13.4	133.0	
		0000	T.S.	990	23	13.5	132.2	
		0600	T.S.	990	23	13.6	131.3	
	14	1200	T.S.	990	23	13.7	130.5	
		1800	T.S.	990	23	13.7	129.7	
		0000	T.S.	990	23	13.7	128.9	
	15	0600	T.S.	994	21	13.7	128.1	
		1200	T.S.	994	21	13.8	127.3	
		1800	T.S.	994	21	13.9	126.5	
	16	0000	T.S.	994	21	14.1	125.8	
		0600	T.S.	994	21	14.4	125.0	
		1200	T.S.	994	21	14.7	124.2	
	16	1800	T.S.	994	21	14.9	123.4	
		0000	T.S.	998	18	15.2	122.8	
			0600	T.D.	1000	16	15.4	122.5

消散  
Dissipated

**颱風柏加(9728)的每六小時之位置及強度**  
**SIX-HOURLY POSITION AND INTENSITY DATA OF**  
**TYPHOON PAKA (9728)**

月份 Month	日期 Date	時間 (協調世界時) Time (UTC)	強度 Intensity	估計最低 中心氣壓 (百帕斯卡) Estimated minimum central pressure (hPa)	估計 最高風速 (米每秒) Estimated maximum surface winds (m/s)	北緯 Lat. °N	東經 Long. °E
十二月 Dec	7	1200	T.S.	998	18	8.5	179.4
		1800	T.S.	998	18	8.2	178.7
	8	0000	T.S.	998	18	7.9	178.0
		0600	T.S.	998	18	7.6	177.2
		1200	T.S.	998	18	7.3	176.4
		1800	T.S.	994	21	7.1	175.6
	9	0000	T.S.	990	23	7.0	174.8
		0600	T.S.	990	23	7.0	174.2
		1200	S.T.S.	985	25	6.9	173.6
		1800	S.T.S.	985	25	6.8	173.0
	10	0000	S.T.S.	985	25	6.8	172.4
		0600	S.T.S.	985	25	6.9	171.5
		1200	S.T.S.	980	28	6.9	170.6
		1800	S.T.S.	975	31	6.8	169.9
	11	0000	T.	970	33	6.7	169.2
		0600	T.	970	33	6.7	168.6
		1200	T.	965	36	6.9	168.0
		1800	T.	960	39	7.3	167.4
	12	0000	T.	960	39	7.6	166.7
		0600	T.	960	39	7.8	166.0
		1200	T.	960	39	8.0	165.2
		1800	T.	960	39	8.3	164.1
	13	0000	T.	960	39	8.7	163.0
		0600	T.	960	39	9.1	161.8
		1200	T.	960	39	9.5	160.5
		1800	T.	960	39	9.9	159.2
	14	0000	T.	955	41	10.4	157.6
		0600	T.	955	41	10.9	156.0
		1200	T.	950	43	11.4	154.5
		1800	T.	945	46	11.8	153.0
	15	0000	T.	945	46	12.2	151.4
		0600	T.	935	49	12.6	149.9
		1200	T.	945	46	13.0	148.4
		1800	T.	945	46	13.4	147.2
	16	0000	T.	945	46	13.6	146.2
		0600	T.	945	46	13.7	145.5
		1200	T.	945	46	13.8	144.7
		1800	T.	945	46	13.8	143.9

颱風柏加(9728)的每六小時之位置及強度(續)  
 SIX-HOURLY POSITION AND INTENSITY DATA OF  
 TYPHOON PAKA (9728) (Cont.)

月份 Month	日期 Date	時間 (協調世界時) Time (UTC)	強度 Intensity	估計最低 中心氣壓 (百帕斯卡) Estimated minimum central pressure (hPa)	估計 最高風速 (米每秒) Estimated maximum surface winds (m/s)	北緯 Lat. °N	東經 Long. °E
十二月 Dec	17	0000	T.	945	46	13.7	143.2
		0600	T.	945	46	13.6	142.5
		1200	T.	935	49	13.7	141.4
		1800	T.	935	49	14.1	140.6
	18	0000	T.	935	49	14.4	139.8
		0600	T.	935	49	14.7	139.0
		1200	T.	940	46	15.0	138.1
		1800	T.	940	46	15.2	137.3
	19	0000	T.	940	46	15.4	136.5
		0600	T.	940	46	15.5	135.8
		1200	T.	945	43	15.9	135.1
		1800	T.	950	41	16.4	134.5
	20	0000	T.	955	39	16.8	134.0
		0600	T.	955	39	17.2	133.5
		1200	T.	960	36	17.5	133.1
		1800	T.	970	33	17.8	132.8
	21	0000	S.T.S.	975	31	18.1	132.4
		0600	S.T.S.	985	25	18.2	132.1
		1200	T.S.	994	21	18.3	131.8
		1800	T.D.	1000	16	18.4	131.5

消散  
Dissipated