第二節

二零零五年熱帶氣旋概述

Section 2

TROPICAL CYCLONE OVERVIEW FOR 2005

2.1 二零零五年的熱帶氣旋回顧

2.1.1 北太平洋西部（包括南海區域）的熱帶氣旋

二零零五年共有26個熱帶氣旋影響北太平洋西部及南海區域（即由赤道至北緯45度、東經100至180度所包括的範圍），這數目少於1961-1990的30年平均數31個，當中有13個熱帶氣旋達到颱風強度，比正常數目少三個。

本年首個熱帶氣旋在一月形成。圖2.1是二零零五年在北太平洋西部及南海區域的熱帶氣旋及颱風出現次數之每月分佈。

於二零零五年內有八個熱帶氣旋吹襲中國，台灣和日本（包括琉球群島）則同樣受到三個熱帶氣旋影響，另有四個橫過菲律賓及六個登陸越南。

二零零五年風力最強的熱帶氣旋是彩蝶（0514），最高風速估計約爲每小時220公里，而最低中心氣壓則約爲910百帕斯卡。

2.1.2 香港責任範圍內的熱帶氣旋

在二零零五年的26個熱帶氣旋中，有15個影響香港責任範圍（即北緯10至30度、東經105至125度所包括的地區），與1961-1990的30年平均16.4個相約（表2.1）。這15個熱帶氣旋中，有六個在香港責任範圍內形成。在二零零五年，香港天文台總共發出301個供船舶使用的熱帶氣旋警告（表4.2）。

2.1.3 南海區域內的熱帶氣旋

二零零五年共有11個熱帶氣旋影響南海區域（即北緯10至25度、東經105至120度所包括的地區），當中有五個在南海形成，其餘六個從北太平洋西部進入南海。

2.1.4 影響香港的熱帶氣旋

全年只有三個熱帶氣旋影響香港（圖2.2），比正常數目少三個（表2.2）。這三個熱帶氣旋是珊瑚（0510）、韋森特（0516）及達維（0518）。

本年九月達維影響香港期間，天文台發出了三號強風信號，這亦是今年發出的最高信號。而八月的珊瑚和九月的韋森特亦導致天文台發出一號戒備信號。

2.1.5 熱帶氣旋的雨量

二零零五年各熱帶氣旋爲香港帶來的雨量（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）共爲584.0毫米，約佔該年總雨量3 214.5毫米的百分之18，比正常的737.9毫米少約百分之21。

2.2 每月概述

這一節逐月介紹二零零五年北太平洋西部及南海區域的熱帶氣旋概況。影響香港的各熱帶氣旋則詳述於第三節。

一月

熱帶低氣壓玫瑰(0501)於一月十四日在關島東南偏南約850公里的西北太平洋上形成，並向北移動。次日它增強爲一熱帶風暴，並於一月十六日橫越關島以東海面後，轉向東北移動。一月十八日，玫瑰進一步增強爲一強烈熱帶風暴。玫瑰在翌日清晨減弱爲一熱帶風暴，隨後在西北太平洋上變成一個低壓區。

二月

二零零五年二月並無熱帶氣旋影響北太平洋西部及南海區域。

三月

洛克(0502)於三月十三日在關島以南約590公里的西北太平洋上發展成爲一熱帶低氣壓，並向西北偏西移動。三月十五日，洛克轉向西推進，翌日它增強成爲一個強烈熱帶風暴。洛克於三月十七日橫過菲律賓中部，並逐漸減弱，次日在南海上消散。在洛克的吹襲下，菲律賓最少有八人死亡，一人失蹤。另外，一艘渡輪和一艘漁船翻沉。

四月

桑卡(0503)於四月二十二日在雅蒲島西北約340公里的西北太平洋上發展成爲一熱帶低氣壓，並向西移動。次日，它變成一個熱帶風暴，然後向西北推進。桑卡於四月二十四日迅速增強成爲一個颱風，翌日轉向東北移動。四月二十七日，桑卡掠過硫黃島以北海域，隨後變成溫帶氣旋。

五月及六月

納沙(0504)於五月三十一日在關島東南偏南約430公里處形成爲一個熱帶低氣壓。它向西北偏西移動，並於六月二日清晨增強爲一颱風。納沙翌日開始採取西北路徑，然後在六 月五日轉向東北推進。納沙於六月九日在日本以南海域逐漸減弱。它於兩日後在太平洋上變成溫帶氣旋。

七月

海棠(0505)在七月十一日於硫黃島以東約1170 公里處發展成爲一個熱帶低氣壓。它大致向西南偏西移動，並於七月十四日在馬里安納群島以北海域增強成爲一個颱風。次日，海棠轉向西北偏西移動。七月十八日它在台灣東岸登陸。海棠吹襲台灣期間，共導致六人死亡，30人受傷，一人失蹤，超過一百萬戶的用電中斷，經濟損失超過四億五千萬新台幣。七月十九日，海棠橫越台灣海峽，當晚在福建沿岸登陸，並減弱成強烈熱帶風暴。在福建及浙江，海棠最少造成三人死亡，另外超過一百萬人需要疏散。翌日，海棠進一步移入內陸並且消散。

一個名爲尼格(0506)的熱帶低氣壓在七月二十日於威克島西北偏北約610公里的太平洋上形成，並向西北移動。同日尼格增強爲一熱帶風暴。七月二十二日尼格轉向大致東北路徑移動，七月二十四日在太平洋上消散。

七月二十一日，榕樹(0507)在雅蒲島以北約480公里的太平洋上發展成一個熱帶低氣壓，並向北移動。榕樹於七月二十三日達到強烈熱帶風暴強度。七月二十六日，榕樹轉向東北推進，並掠過日本本州東南沿岸後，在七月二十八日變成溫帶氣旋。受到榕樹的影響，日本有超過43班航機被取消。

天鷹(0508)在七月二十八日於東沙之西南約320公里的南海上發展成爲一個熱帶低氣壓，並向西北偏西推進。七月二十九日天鷹增強成爲一個熱帶風暴，次日橫過海南島。它於七月三十一日在越南北部沿岸登陸，翌日清晨在老撾北部消散。受天鷹的相關雨帶影響，香港在本月最後三天間中有大驟雨及狂風雷暴。

熱帶低氣壓麥莎(0509)在七月三十一日於雅蒲島西北約260公里的太平洋上形成，並向西北移動。八月二日，麥莎增強成爲一個颱風。隨後兩天，它橫過台灣以東海域。與麥莎相關的豪雨，在台灣引發多處山泥傾瀉和水浸，導致七人受傷，另有兩人失蹤，農業損失約爲四千萬新台幣。麥莎於八月六日在浙江登陸，八月八日在山東省消散。麥莎吹襲中國東部期間，最少造成八人死亡，經濟損失超過60億人民幣。

八月

珊瑚(0510)在八月十日於馬尼拉以東約990公里處發展成爲一個熱帶低氣壓，並向西北偏西移動。珊瑚橫越呂宋海峽後，於八月十二日晚上在南海北部增強成爲一強烈熱帶風暴，次日在廣東汕頭附近登陸，隨後變成熱帶風暴。珊瑚於八月十四日進一步減弱，並在內陸消散。

一個名爲瑪娃(0511)的熱帶低氣壓在八月二十日於硫黃島東南偏南約470公里的太平洋上形成。它向西北移動。並於八月二十一日增強成爲一個颱風。兩日後，瑪娃採取偏北路徑移動，大致趨向日本。八月二十五日，它轉向東北推進。掠過日本本州東南沿岸後，瑪娃於翌日減弱爲熱帶風暴。八月二十七日早上，它在太平洋上變成溫帶氣旋。受到瑪娃的影響，日本有一人死亡，五人受傷，超過30班航機被取消。

八月二十一日，古超(0512)在硫黃島東南偏東約880 公里處發展成一個熱帶低氣壓，並向西北偏北移動。翌日它增強爲一強烈熱帶風暴。古超於八月二十三日轉向東北推進，於八月二十五日在太平洋上變成溫帶氣旋。

泰利(0513)在八月二十六日於關島西南偏南約150公里的太平洋上發展成一個熱帶低氣壓。它大致向西北移動並增強，於八月二十八日達到颱風強度。隨後，泰利轉向西北偏西推進，並於九月一日早上橫過台灣。受到泰利吹襲，台灣最少有七人死亡，200人受傷，農業損失約爲12億新台幣。同日下午，泰利在福建登陸後，進一步移入內陸，翌日減弱爲一低壓區。泰利在多省造成嚴重災害，導致96人死亡，約30人失蹤，經濟損失超過120億人民幣。

一個名爲彩蝶(0514)的熱帶低氣壓在八月二十九日於關島以東約940公里處形成，並向西移動。它於八月三十一日清晨增強成爲一個颱風，同日橫過瑪里安納群島。隨後數天，它大致趨向九州。彩蝶於九月六日在鹿兒島附近登陸後轉向東北移動。次日它在日本海減弱爲強烈熱帶風暴。九月八日早上，彩蝶橫越北海道後變成溫帶氣旋。彩蝶肆虐日本期間，導致21人死亡及149人受傷，另六人失蹤，損毀近2 000間房屋，約270 000用戶的電力中斷。

九月

卡努(0515)在九月六日於雅蒲島以北約100公里處發展成一個熱帶低氣壓。它大致向西北移動並增強，於九月九日達到颱風強度。卡努於九月十一日在浙江省登陸，次日橫過江

蘇省，最終於九月十三日清晨在黃海消散。受到卡努影響，華東最少有14人死亡，另九人失蹤。

一個熱帶低氣壓於九月十二日在西沙島之東南偏南約370公里的南海形成，它向西移動，翌日早上在越南南部沿岸地區消散。

韋森特(0516)於九月十六日在南沙島西北約80公里的南海上發展成爲一個熱帶低氣壓，並大致向北移動。在該日傍晚韋森特增強成爲熱帶風暴。它於九月十七日轉向西北偏西推進，次日在越南登陸。韋森特於九月十九日在老撾北部變爲一個低壓區。

一個名爲蘇拉(0517)的熱帶低氣壓在九月二十日於硫黃島東南偏東約1 120公里處形成，並向西北偏西移動。它於九月二十二日增強爲一颱風，並橫越硫黃島及小笠原群島之間海面。九月二十四日，蘇拉在日本以南的太平洋上轉向東北移動。兩日後它在日本以東海面減弱爲一強烈熱帶風暴，接著變成溫帶氣旋。

達維(0518)在九月二十一日清晨於碧瑤東北偏東約310公里的太平洋上發展成爲一個熱帶低氣壓，並向西北移動。同日早上它增強爲一熱帶風暴，然後掠過呂宋東北端。次日達維於南海轉向偏西路徑移動，大致趨向海南省。它在橫過南海北部期間，逐漸增強成爲一個颱風。達維於九月二十六日橫掃海南省，翌日在越南北部登陸。達維最終於九月二十八 日在老撾消散。

一個名爲龍王(0519)的熱帶低氣壓在九月二十六日於硫黃島之東南偏南約620公里處形成。它大致向西北偏西移動，並於九月二十七日達到颱風強度。龍王於十月二日早上橫過台灣，造成一人死亡，50多人受傷，一人失蹤。約76萬戶的電力中斷，農業損失超過一億新台幣。龍王於十月二日晚上在廈門附近登陸，翌日在內陸消散。它在福建亦造成嚴重災害，導致最少有60人死亡，20多人失蹤，約54萬人需要撤離。另外，約5 400間房屋被損毀，經濟損失逾12億人民幣。

十月

一個熱帶低氣壓於十月七日下午在峴港之東北偏東約120公里的南海形成。它向西移動，翌日清晨橫過越南中部後消散。

鴻雁(0520)於十月十日在硫黃島之西南偏西約720公里處展成爲一個熱帶低氣壓，並大致向西南移動。它於翌日增強成爲颱風，然後緩慢地向西北偏北前進。十月十五日，鴻雁再度轉向，採取東北路徑移動。它於十月十九日清晨在本州和小笠原群島之間的海面減弱爲熱帶風暴，隨後變成溫帶氣旋。

熱帶低氣壓啓德(0521)在十月二十八日於南沙島以北約280公里的南海上形成。它大致向西北移動，並於十月三十日達到颱風強度。啓德於十一月二日在越南登陸，當晚在河內附近消散。啓德吹襲越南期間，造成20多人死亡，14人受傷，損毀近7 500間房屋。

十一月

天秤(0522)在十一月七日於雅蒲島以北約250公里的太平洋上發展成一個熱帶低氣壓，並大致向西北偏西移動。它於十一月十日早上增強爲一熱帶風暴，傍晚在呂宋東岸登陸，翌日在南海消散。

一個名爲布拉萬(0523)的熱帶低氣壓在十一月十四日於馬尼拉之東南約960公里處形成。隨後數天，它迂迴曲折地向北移動，並於十一月十七日增強爲強烈熱帶風暴。布拉萬在十一月十八日採取西北偏西路徑移動，翌日轉向西北推進。其後布拉萬逐漸減弱，並於十一月二十日在呂宋以東海面消散。

十二月

一個熱帶低氣壓在十二月十九日於南沙島西南偏西約340公里處形成，並大致向西北推進。它於翌日早上轉向西南移動，並於當天下午在越南以南海面消散。

備註：人命傷亡及財物損毀數據是根據報章報導輯錄而成。

2.1 Review of tropical cyclones in 2005

2.1.1 Tropical cyclones over the western North Pacific (including the South China Sea)

In 2005, 26 tropical cyclones occurred over the western North Pacific and the South China Sea (i.e. the area bounded by the Equator, 45°N, 100°E and 180°), less than the 30-year (1961-1990) average of 31. Throughout the year, 13 tropical cyclones attained typhoon strength, three less than the normal figure.

The first tropical cyclone of the year formed in January. The monthly frequencies of the occurrence of tropical cyclones and typhoons in the western North Pacific and the South China Sea in 2005 are shown in Figure 2.1.

During the year, eight tropical cyclones hit mainland China, three affected Taiwan, three affected Japan (including Ryukyu Islands), four traversed the Philippines, another six made landfall over Vietnam.

The most intense tropical cyclone in 2005 was Nabi (0514). Nabi had a maximum wind speed of about 220 km/h and a minimum sea-level pressure about 910 hPa.

2.1.2 Tropical cyclones in Hong Kong's area of responsibility

Amongst those 26 tropical cyclones in 2005, 15 occurred inside Hong Kong's area of responsibility (i.e. the area bounded by 10°N, 30°N, 105°E and 125°E). This was near the 30-year (1961-1990) annual average of 16.4 (Table 2.1). Six of these 15 tropical cyclones developed within Hong Kong's area of responsibility. Altogether, 301 tropical cyclone warnings to ships and vessels were issued by the Hong Kong Observatory in 2005 (Table 4.2).

2.1.3 Tropical cyclones over the South China Sea

There were 11 tropical cyclones affecting the South China Sea (i.e. the area bounded by 10°N, 25°N, 105°E and 120°E) in 2005. Five of them formed over the area. Six moved into the area from the western North Pacific.

2.1.4 Tropical cyclones affecting Hong Kong

Only three tropical cyclones affected Hong Kong in 2005 (Figure 2.2), three less than the normal number (Table 2.2). These three tropical cyclones were Sanvu (0510), Vicente (0516) and Damrey (0518).

The highest signal issued this year was Strong Wind Signal No.3 when Damrey affected Hong Kong in September. Sanvu in August and Vicente in September only necessitated the issuance of the Standby Signal No. 1 in Hong Kong.

2.1.5 Tropical cyclone rainfall

Tropical cyclone rainfall (the total rainfall recorded at the Hong Kong Observatory from the time when a tropical cyclone is centred within 600 km of Hong Kong to 72 hours after it has dissipated or moved farther than 600 km away from Hong Kong) in 2005 was 584.0 mm. This is 21 % below the normal of 737.9 mm and accounts for some 18 % of the year's total rainfall of 3 214.5 mm.

2.2 Monthly overview

A monthly overview of tropical cyclones is given in this Section. Detailed reports on tropical cyclones affecting Hong Kong are presented in Section 3.

JANUARY

Kulap (0501) formed as a tropical depression over the western North Pacific about 850 km south-southeast of Guam on 14 January and headed north. After intensifying into a tropical storm the following day, Kulap traversed the seas east of Guam and turned northeastwards on 16 January. It further intensified into a severe tropical storm on 18 January. Kulap weakened into a tropical storm early next morning before degenerating into an area of low pressure over the western North Pacific.

FEBRUARY

No tropical cyclone occurred over the western North Pacific and the South China Sea in February.

MARCH

Roke (0502) formed as a tropical depression over the western North Pacific about 590 km south of Guam on 13 March and headed west-northwestwards. It turned west on 15 March and intensified into a severe tropical storm the next day. Roke swept across the central part of the Philippines on 17 March and weakened gradually. It dissipated over the South China Sea the following day. Under the influence of Roke, at least eight people were killed and one reported missing in the Philippines. In addition, a ferry and a fishing boat capsized.

APRIL

Sonca (0503) formed as a tropical depression over the western North Pacific about 340 km northwest of Yap on 22 April and moved westwards. After intensifying into a tropical storm in the following day, it took on a northwesterly course. Sonca strengthened rapidly into a typhoon on 24 April. It turned to the northeast the next day. On 27 April, it became an extratropical cyclone after skirting the sea areas north of Iwo Jima.

MAY - JUNE

Nesat (0504) formed as a tropical depression about 430 km south-southeast of Guam on 31 May. Moving west-northwestwards, it reached typhoon strength in the early morning of 2 June. Nesat began to track northwestwards the next day and turned northeastwards on 5 June. It weakened gradually on 9 June over the sea areas to the south of Japan and became an extratropical cyclone over the Pacific two days later.

JULY

Haitang (0505) developed as a tropical depression about 1170 km east of Iwo Jima on 11 July. Tracking generally towards the west-southwest, it intensified into a typhoon over the seas to the north of Mariana Islands on 14 July. Haitang turned west-northwest the following day and made landfall over the eastern coast of Taiwan on 18 July. In the fury of Haitang, six people were killed, 30 injured, one reported missing, and the electricity supply of over one million households were interrupted in Taiwan. The economic loss exceeded NT$ 0.45 billion. After moving across the Taiwan Strait on 19 July, Haitang made landfall over the coast of Fujian and weakened into a severe tropical storm that night. Under the influence of Haitang, at least three people were killed

and over one million people had to be evacuated in Fujian and Zhejiang. Haitang moved further inland and dissipated the next day.

A tropical depression named Nalgae (0506) formed over the Pacific about 610 km north-northwest of Wake Island on 20 July. Moving northwestwards, Nalgae strengthened into a tropical storm that day. It adopted a generally northeastward course on 22 July. Nalgae dissipated over the Pacific on 24 July.

On 21 July, Banyan (0507) developed as a tropical depression over the Pacific about 480 km north of Yap. Tracking northwards, Banyan attained severe tropical storm strength on 23 July. It turned to the northeast on 26 July. After skirting the southeastern coast of Honshu of Japan, Banyan became an extratropical cyclone on 28 July. Under the influence of Banyan, at least 43 flights were cancelled in Japan.

Washi (0508) developed as a tropical depression over the South China Sea about 320 km southwest of Dongsha on 28 July. Moving west-northwestwards, it strengthened into a tropical storm on 29 July. Washi swept across Hainan the following day. It made landfall over the coast of northern Vietnam on 31 July and dissipated over northern Laos early next morning. In the last three days of the month, the rain bands associated with Washi brought occasional heavy showers and squally thunderstorms to Hong Kong.

Tropical depression Matsa (0509) developed over the Pacific about 260 km northwest of Yap on 31 July. While tracking towards the northwest, Matsa intensified into a typhoon on 2 August. In the next 2 days, it moved across the sea areas east of Taiwan. Torrential rain associated with Matsa triggered a number of landslides and floods in Taiwan, injuring at least seven people. Another two persons were reported missing. Agricultural losses were estimated at around NT$ 40 million. Matsa made landfall over Zhejiang on 6 August and dissipated over Shandong on 8 August. In the fury of Matsa, at least eight people were killed in eastern China. The economic loss exceeded RMB 6 billion.

AUGUST

Sanvu (0510) developed as a tropical depression about 990 km east of Manila on 10 August and moved towards the west-northwest. After traversing the Luzon Strait, it intensified into a severe tropical storm over the northern part of the South China Sea on the night of 12 August. Sanvu made landfall near Shantou in Guangdong and became a tropical storm the following day. On 14 August, Sanvu weakened further and dissipated over inland.

A tropical depression named Mawar (0511) formed over the Pacific about 470 km south-southeast of Iwo Jima on 20 August. Tracking northwestwards, it attained typhoon strength on 21 August. Mawar adopted a northward course towards Japan two days later and turned to the northeast on 25 August. Mawar weakened into a tropical storm the next day after skirting the southeastern coast of Honshu in Japan. It became an extratropical cyclone over the Pacific in the morning of 27 August. Under the influence of Mawar, one person was killed and another five injured in Japan. At least 30 flights were cancelled.

On 21 August, Guchol (0512) developed as a tropical depression about 880 km east-southeast of Iwo Jima and moved towards the north-northwest. It intensified into a severe tropical storm the next day. Guchol turned to the northeast on 23 August and became an extratropical cyclone over the Pacific on 25 August.

Talim (0513) developed as a tropical depression over the Pacific about 150 km south-southwest of Guam on 26 August. Tracking northwestwards, it reached typhoon strength on 28 August. Talim then adopted a west-northwestward track and swept across Taiwan in the

morning of 1 September. During the passage of Talim, at least seven people were found dead and 200 others were hurt in Taiwan. Agricultural losses were estimated at NT$ 1.2 billion. Talim made landfall over Fujian and moved inland that afternoon. It degenerated into an area of low pressure the next day. Talim inflicted severe damage in several provinces, killing 96 people. Some 30 people were reported missing. The economic loss exceeded RMB 12 billion.

A tropical depression named Nabi (0514) formed about 940 km east of Guam on 29 August and moved westwards. It intensified into a typhoon in the early morning of 31 August and traversed Mariana Islands the same day. Nabi then tracked in the general direction towards Kyushu in the next few days. It made landfall near Kagoshima on 6 September. Nabi then turned to the northeast and weakened into a severe tropical storm over the Sea of Japan the following day. After traversing Hokkaido, it became an extratropical cyclone in the morning of 8 September. In the fury of Nabi, 21 people were killed, 149 injured, another six reported missing in Japan. Near 2 000 houses were destroyed and power supply to about 270 000 families was suspended.

SEPTEMBER

Khanun (0515) developed as a tropical depression about 100 km north of Yap on 6 September. Moving northwestwards, it attained typhoon strength on 9 September. Khanun made landfall over Zhejiang on 11 September and moved across Jiangsu in the following day. It eventually dissipated over the Yellow Sea in the early morning of 13 September. During its passage, at least 14 persons were killed, and another nine were reported missing in eastern China.

On 12 September, a tropical depression formed over the South China Sea, about 370 km south-southeast of Xisha Dao. It took on a westward course and dissipated over coastal areas of southern Vietnam the next morning.

On 16 September, Vicente (0516) formed as a tropical depression over the South China Sea about 80 km northwest of Nansha Dao. Moving generally towards the north, it deepened into a tropical storm that evening. Vicente turned west-northwestwards on 17 September and made landfall over Vietnam the following day. On 19 September, it degenerated into an area of low pressure over the northern part of Laos.

A tropical depression named Saola (0517) formed about 1 120 km east-southeast of Iwo Jima on 20 September. Moving towards the west-northwest, it intensified into a typhoon on 22 September and then traversed the sea between Iwo Jima and Ogasawara Islands. Saola turned northeastwards on 24 September over the Pacific to the south of Japan. It weakened into a severe tropical storm and subsequently became an extratropical cyclone over the seas east of Japan two days later.

Damrey (0518) developed as a tropical depression over the Pacific about 310 km east-northeast of Baguio in the early morning of 21 September. It moved northwestwards and intensified into a tropical storm before skirting the northeastern tip of Luzon that morning. Over the South China Sea, Damrey turned to the west the following day and then tracked in the general direction of Hainan. It gradually intensified into a typhoon while moving across the northern part of the South China Sea. Damrey swept across Hainan on 26 September and made landfall over northern Vietnam the next day. It eventually dissipated over Laos on 28 September.

A tropical depression named Longwang (0519) formed about 620 km south-southeast of Iwo Jima on 26 September. Tracking generally west-northwest, it reached typhoon strength on 27 September. Longwang swept across Taiwan in the morning of 2 October, causing one death and injuring some 50 people. Another person was reported missing. Power supply to some 760 000 households was interrupted. Agricultural losses exceeded NT$ 100 million. Longwang made

landfall near Xiamen in the evening of 2 October and dissipated over inland area the next day. It also inflicted severe damage in Fujian where at least 60 people died, some 20 others were reported missing, and about 540 000 people had to be evacuated. In addition, around 5 400 houses were damaged. The economic loss exceeded RMB 1.2 billion.

OCTOBER

On 7 October, a tropical depression formed over the South China Sea about 120 km east-northeast of Da Nang and moved westwards. It dissipated soon after crossing central Vietnam early next morning.

Kirogi (0520) developed as a tropical depression about 720 km west-southwest of Iwo Jima on 10 October and moved generally southwestwards. It intensified into a typhoon the next day and then headed slowly towards the north-northwest. Kirogi changed direction again on 15 October and began to track northeastwards. Traversing the seas between Honshu and Ogasawara Islands, Kirogi weakened into a tropical storm in the early morning of 19 October and became an extratropical cyclone later that day.

Kai-tak (0521) formed as a tropical depression over the South China Sea about 280 km north of Nansha Dao on 28 October. Moving generally towards the northwest, it attained typhoon strength on 30 October. Kai-tak made landfall over Vietnam on 2 November and dissipated near Ha Noi that evening. During its passage, some 20 people were killed and 14 injured in Vietnam. Near 7 500 houses were damaged.

NOVEMBER

Tembin (0522) developed as a tropical depression over the Pacific about 250 km north of Yap on 7 November. Tracking mainly towards the west-northwest, it intensified into a tropical storm in the morning of 10 November. Tembin made landfall over the eastern coast of Luzon that evening and dissipated over the South China Sea the next day.

A tropical depression named Bolaven (0523) formed about 960 km southeast of Manila on 14 November. Meandering towards the north in the following days, Bolaven intensified into a severe tropical storm on 17 November. It took on the west-northwestward course on 18 November and turned to the northwest the next day. Bolaven weakened gradually thereafter and dissipated over seas east of Luzon on 20 November.

DECEMBER

A tropical depression formed about 340 km west-southwest of Nansha Dao on 19 December and tracked generally northwest. It turned to the southwest the next morning and dissipated over the seas off southern Vietnam that afternoon.

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

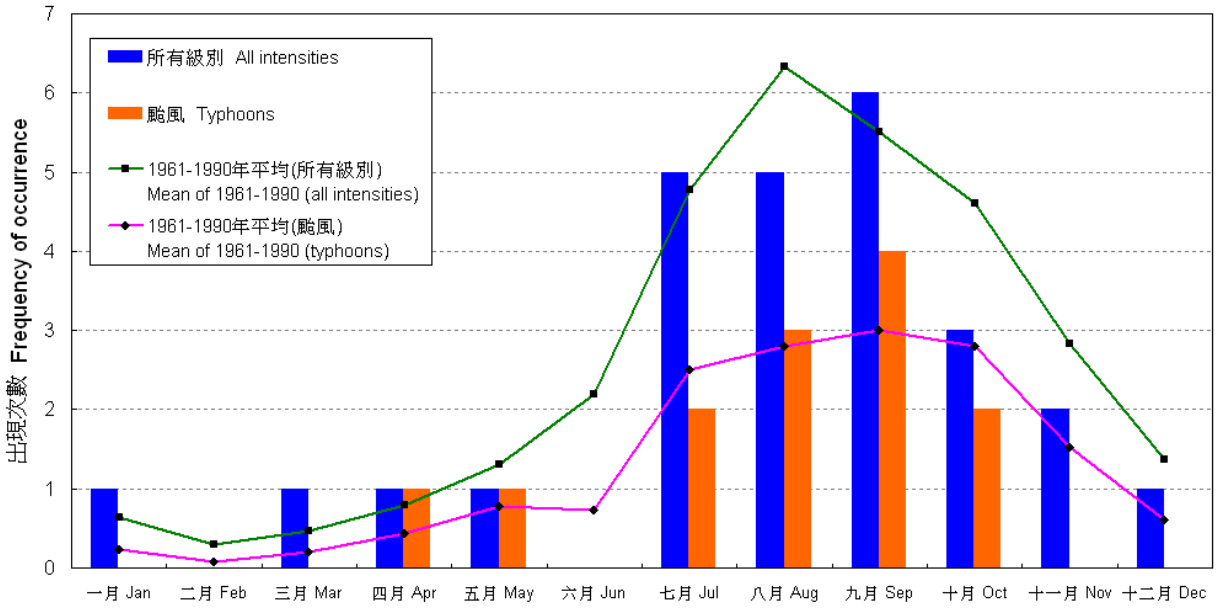


圖 2.1　二零零五年在北太平洋西部及南海區域的熱帶氣旋出現次數之每月分佈 (以熱帶氣旋在該月初次出現爲準)。

Figure 2.1 Monthly frequencies of the occurrence of tropical cyclones in the western North Pacific and the South China Sea in 2005 (based on the first occurrence of the tropical cyclone in the month).

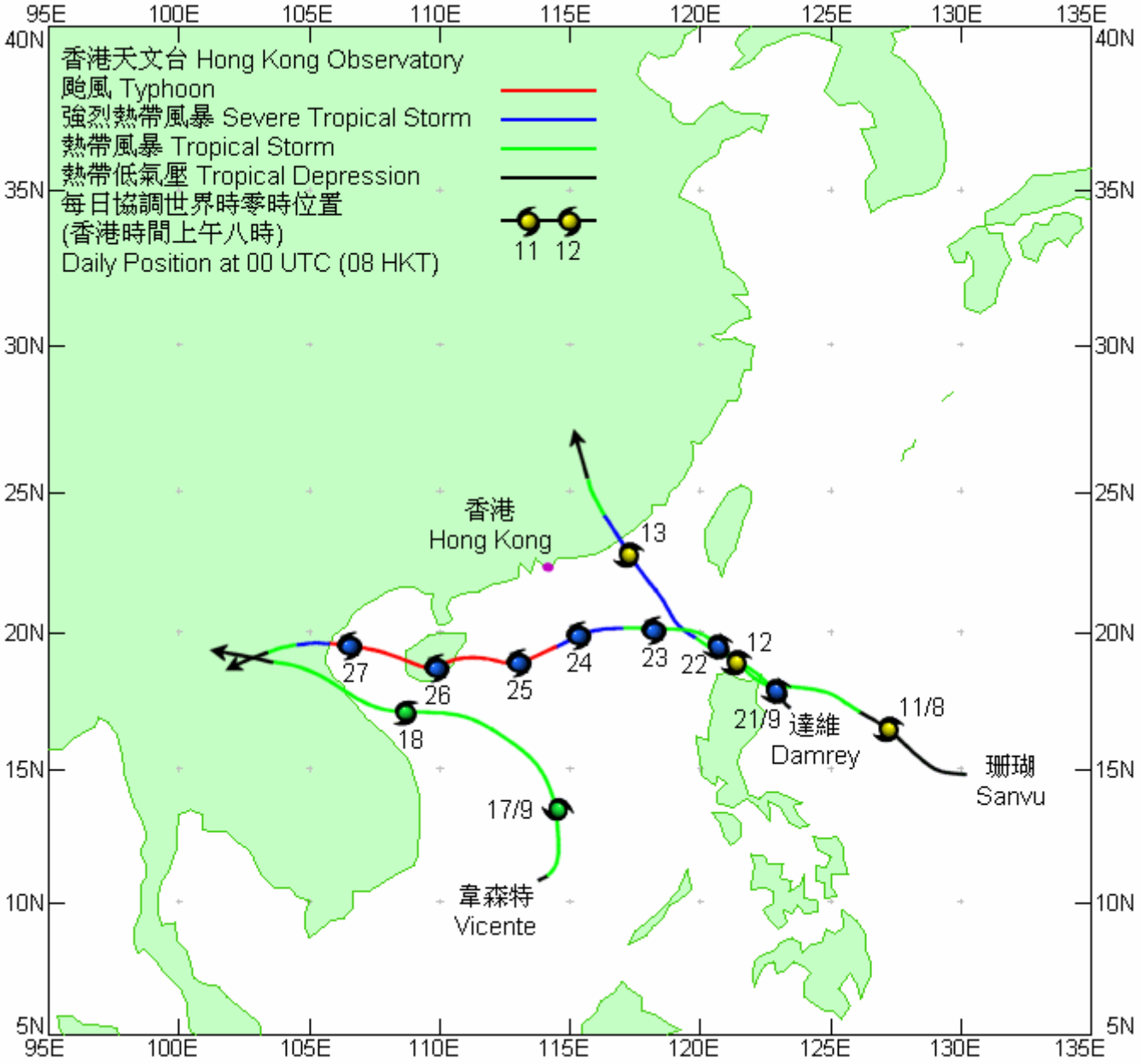


圖 2.2　　二零零五年三個影響香港的熱帶氣旋的路徑圖。

Figure 2.2　　Tracks of the three tropical cyclones affecting Hong Kong in 2005.

表 2.1　在香港責任範圍內 (10°-30°N, 105°-125°E)熱帶氣旋出現之每月分佈
(以熱帶氣旋在該月初次出現爲準)

TABLE 2.1 MONTHLY DISTRIBUTION OF THE OCCURRENCE OF TROPICAL CYCLONES IN HONG KONG'S AREA OF RESPONSIBILITY (10° - 30°N, 105° - 125°E), BASED ON THE FIRST OCCURRENCE OF THE TROPICAL CYCLONE IN THE MONTH

年份 Year	月份 Month												共 Total
	一月 Jan	二月 Feb	三月 Mar	四月 Apr	五月 May	六月 Jun	七月 Jul	八月 Aug	九月 Sep	十月 Oct	十一月 Nov	十二月 Dec	
1961					3	5	2	5	4	3	1	1	24
1962					3		4	5	4	1	3		20
1963						3	3	3	2			2	13
1964					1	1	5	3	6	3	6	1	26
1965	1				2	3	4	3	2		1		16
1966					2		5	2	3	2	2	1	17
1967			1	1		1	2	6	1	2	3		17
1968							2	4	2	1	3		12
1969							3	3	4	1			11
1970		1				2	2	3	4	5	3		20
1971				1	2	2	5	3	3	4			20
1972	1					3	2	4	2	1	1	1	15
1973							4	4	2	4	3		17
1974						3	2	4	2	4	4	2	21
1975	1					1		3	2	3	1	1	12
1976					1	1	1	4	1		1	1	10
1977						1	4	1	3		1		10
1978	1			1		2	2	4	5	4	1		20
1979				1	2	1	3	5	2	2	1	1	18
1980			1		3	1	5	2	3	1	1		17
1981						3	3	3	1	1	3	1	15
1982			2		1	1	3	3	3	1		2	16
1983						1	3	1	3	5	2		15
1984						2	2	4	2	2	2		14
1985						2	2	2	4	4	1		15
1986					1	1	1	4	1	3	3	2	16
1987						1	3	2	1	1	3	1	12
1988	1				1	3	1	1	2	5	2	1	17
1989					2	1	4	2	4	3	1		17
1990					1	4	2	3	3	3	2		18
1991				1	1	1	3	2	2	1	3		14
1992						2	3	2	2	2			11
1993						1	1	2	3	2	2	3	14
1994				1	1	2	6	5	2	2		1	20
1995						1	1	5	5	3	1	1	17
1996		1		1	2		3	3	2	1	2		15
1997					1		1	4	1	2	1		10
1998							1	3	4	3	3	1	15
1999				1		1	1	2	3	2	1	1	12
2000					2	1	3	5	3	3	2	1	20
2001					1	2	4	2	2	1	1	1	14
2002	1					1	3	2	3				10
2003				1	1	2	2	3	1	1	1		12
2004			1		1	3	2	2	2	1	2	1	15
2005			1				2	3	4	3	2		15
正常 Normal	0.2	0.0	0.1	0.1	0.8	1.6	2.8	3.2	2.7	2.3	1.8	0.6	16.4

表 2.2　　影響香港的熱帶氣旋之每月分佈

TABLE 2.2　MONTHLY DISTRIBUTION OF TROPICAL CYCLONES AFFECTING HONG KONG

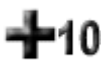
年份 Year	月份 # Month #												共 Total
	一月	二月	三月	四月	五月	六月	七月	八月	九月	十月	十一月	十二月	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1961					1		3		2				6
1962							2	1		1			4
1963						1	1	1	1				4
1964					1	1		1	4	3			10
1965						1	2		2		1		6
1966					1		3	1	1				6
1967				1		1	1	3		1	1		8
1968							1	3	2				6
1969							1		2	1			4
1970							1	2	1	2			6
1971					1	2	3	1	1	1			9
1972						2	1	1			1		5
1973							2	3	2	2			9
1974						2	1		2	4	1	1	11
1975						1		1	2	3			7
1976						1	1	2	1				5
1977						1	3	1	3				8
1978				1			1	2	2	2			8
1979							2	2	2				6
1980					1	1	4	1	2	1			10
1981						1	2	1	1				5
1982						1	2		1	1			5
1983							3		2	2			7
1984						1	1	2	1				5
1985						1	1		2	1			5
1986							1	2		1			4
1987						1		2	1	1			5
1988					1	1	1		1	2			6
1989					1	1	2		1	2			7
1990					1	2	1	1	1				6
1991							3	1	2				6
1992						1	3	1					5
1993						1	1	2	3	1	1		9
1994						2		1	1				4
1995							1	4	2	1			8
1996							2	2	2	1			7
1997							1	1					2
1998								2	1	2			5
1999				1		1	1	1	3	1			8
2000						1	2	2	1		1		7
2001						2	2	1	1				6
2002								2	1				3
2003							2	1	1				4
2004						1	1	1					3
2005								1	2				3
正常 Normal	0.0	0.0	0.0	0.1	0.3	0.8	1.6	1.1	1.4	1.0	0.1	0.0	6.4

熱帶氣旋警告信號首次發出的月份。

The month that the tropical cyclone warning signal was first issued.

表 2.3 香港各熱帶氣旋警告信號之意義

TABLE 2.3 MEANING OF ALL TROPICAL CYCLONE WARNING SIGNALS IN HONG KONG

信號 Signal		顯示符號 Symbol Display	信號之意義 Meaning of the Signal
戒備 Standby	1		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		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		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		
東北 烈風或暴風 NE'LY Gale or Storm	8 東北 NE		
東南 烈風或暴風 SE'LY Gale or Storm	8 東南 SE		
烈風或暴風風力增強 Increasing Gale or Storm	9		烈風或暴風風力現正或將會顯著增強。 Gale or storm force wind is increasing or expected to increase significantly in strength.
颶風 Hurricane	10		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.