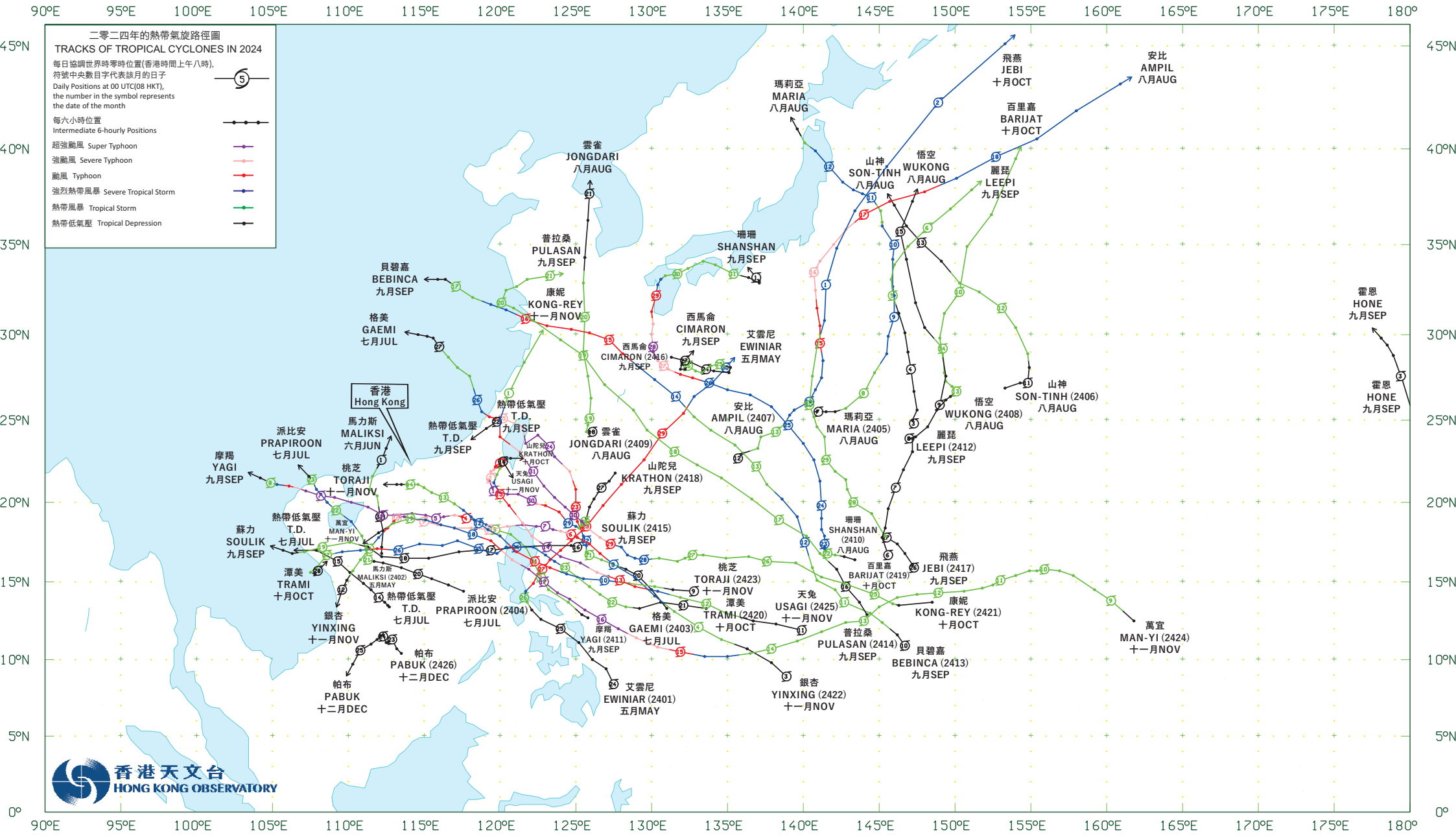

二零二四年的熱帶氣旋路徑圖
TRACKS OF TROPICAL CYCLONES IN 2024
每日協調世界時零時位置(香港時間上午八時),
符號中央數目字代表該月的日子
Daily Positions at 00 UTC(08 HKT),
the number in the symbol represents
the date of the month
每六小時位置
Intermediate 6-hourly Positions
超強颱風 Super Typhoon
強颱風 Severe Typhoon
颱風 Typhoon
強烈熱帶風暴 Severe Tropical Storm
熱帶風暴 Tropical Storm
熱帶低氣壓 Tropical Depression
90°E 95°E 100°E 105°E 110°E 115°E 120°E 125°E 130°E 135°E 140°E 145°E 150°E 155°E 160°E 165°E 170°E 175°E 180°
45°N 40°N 35°N 30°N 25°N 20°N 15°N 10°N 5°N 0°
香港
Hong Kong
雲雀
JONGDARI
八月AUG
瑪莉亞
MARIA
八月AUG
飛燕
JEBI
十月OCT
安比
AMPIL
八月AUG
百里嘉
BARIJAT
十月OCT
山神
SON-TINH
八月AUG
悟空
WUKONG
八月AUG
麗琵
LEEPI
九月SEP
珊珊
SHANSHAN
九月SEP
普拉桑
PULASAN
九月SEP
貝碧嘉
BEBINCA
九月SEP
康妮
KONG-REY
十一月NOV
格美
GAEMI
七月JUL
西馬侖
CIMARON
九月SEP
艾雲尼
EWINIAR
五月MAY
霍恩
HONE
九月SEP
熱帶低氣壓
T.D.
九月SEP
馬力斯
MALIKSI
六月JUN
派比安
PRAPIROON
七月JUL
摩羯
YAGI
九月SEP
桃芝
TORAJI
十一月NOV
山陀兒
KRATHON
十月OCT
天兔
USAGI
十一月NOV
蘇力
SOULIK
九月SEP
熱帶低氣壓
T.D.
七月JUL
萬宜
MAN-YI
十一月NOV
潭美
TRAMI
十月OCT
銀杏
YINXING
十一月NOV
帕布
PABUK
十二月DEC
熱帶低氣壓
T.D.
七月JUL
派比安
PRAPIROON (2404)
七月JUL
馬力斯
MALIKSI (2402)
五月MAY
雲雀
JONGDARI (2409)
八月AUG
山陀兒
KRATHON (2418)
九月SEP
安比
AMPIL (2407)
八月AUG
瑪莉亞
MARIA (2405)
八月AUG
山神
SON-TINH (2406)
八月AUG
悟空
WUKONG (2408)
八月AUG
麗琵
LEEPI (2412)
九月SEP
霍恩
HONE
九月SEP
西馬侖
CIMARON (2416)
九月SEP
艾雲尼
EWINIAR (2401)
五月MAY
蘇力
SOULIK (2415)
九月SEP
桃芝
TORAJI (2423)
十一月NOV
格美
GAEMI (2403)
七月JUL
摩羯
YAGI (2411)
九月SEP
潭美
TRAMI (2420)
十月OCT
天兔
USAGI (2425)
十一月NOV
銀杏
YINXING (2422)
十一月NOV
珊珊
SHANSHAN (2410)
八月AUG
百里嘉
BARIJAT (2419)
十月OCT
飛燕
JEBI (2417)
九月SEP
康妮
KONG-REY (2421)
十月OCT
普拉桑
PULASAN (2414)
九月SEP
貝碧嘉
BEBINCA (2413)
九月SEP
萬宜
MAN-YI (2424)
十一月NOV
帕布
PABUK (2426)
十二月DEC
香港天文台
HONG KONG OBSERVATORY

2024年熱帶氣旋

29個 **熱帶氣旋**
影響北太平洋西部及南海
平均: 29 - 30個

13個 **達到颱風或以上強度**
平均: 14 - 15個

7個 **熱帶氣旋影響香港**
平均: 約6個

每小時
230公里
915 百帕
2024 年最強熱帶氣旋
超強颱風摩羯 (2411)

724.9毫米
2024年熱帶氣旋為香港帶來的雨量
平均: 704.2 毫米

香港天文台
HONG KONG OBSERVATORY

Tropical Cyclones 2024

29 ***Tropical Cyclones***

affected the western North Pacific and the South China Sea
Normal: 29 - 30

13 ***Reached Typhoon Intensity or Above***

Normal: 14 - 15

7 ***Tropical Cyclones Affected Hong Kong***

Normal: about 6

230 ***km/h***

915 ***hPa***

Strongest Tropical Cyclone in 2024

Super Typhoon Yagi (2411)

724.9 ***mm***

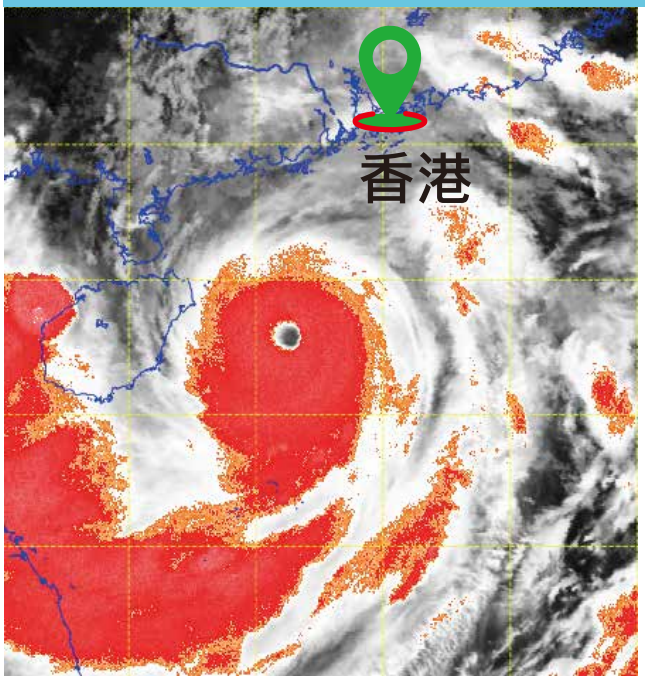
Rainfall Brought by Tropical Cyclones to HK

Normal: 704.2 mm

香港天文台
HONG KONG OBSERVATORY

2024年香港風季焦點

9月的超強颱風 摩羯

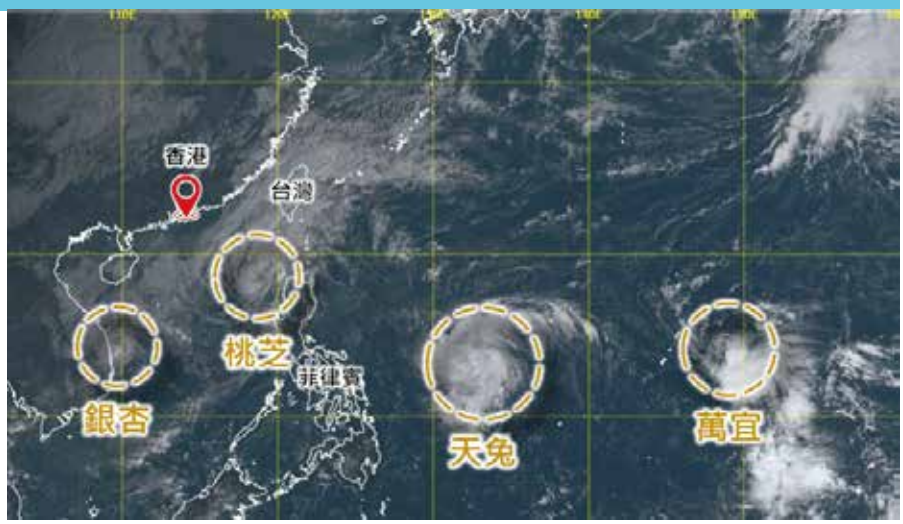


是1950年以來
南海區域內
第二強的熱帶氣旋

天文台需要發出
八號警告信號

11月的四旋共舞

四個熱帶氣旋
在11月的北太平洋西部
及南海同時出現
是1961年以來**首次**

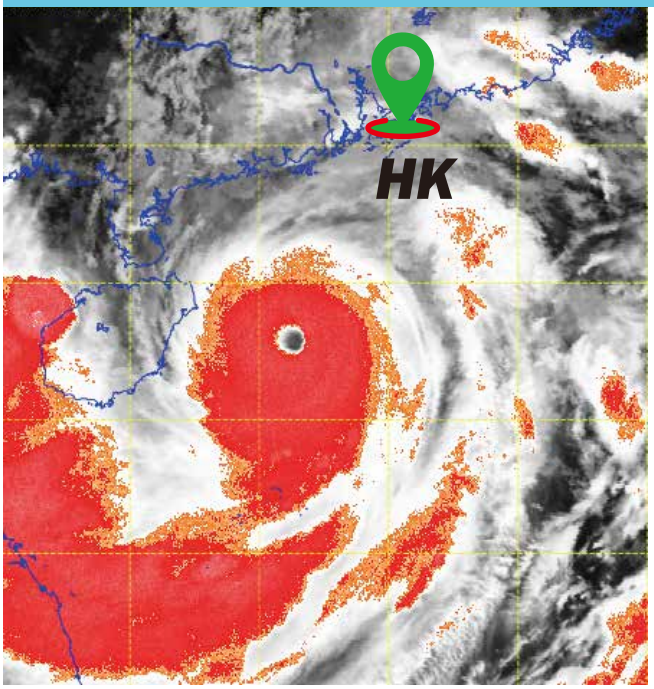


銀杏、桃芝及萬宜
接連影響香港，天文台在11月**三度**發出熱帶氣旋警告信號，
是1946年以來**首次**

香港天文台
HONG KONG OBSERVATORY

Highlights of 2024 Hong Kong Tropical Cyclone Season

SuperT Yagi in September



2nd strongest

TC in the South China Sea

since 1950

Necessistating the issuance of

No. 8 Signal

Co-existence of 4 TCs in November

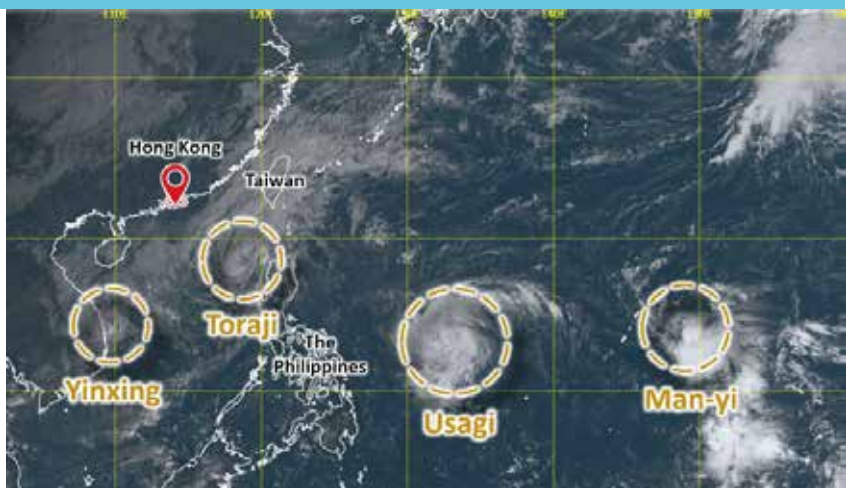
4 TCs ***co-existed***

in the western North Pacific

and the South China Sea

in November,

1st time ***since 1961***



Yinxing, Toraji and Man-yi affected HK successively and

TC warning signals were issued for these **3 episodes**,

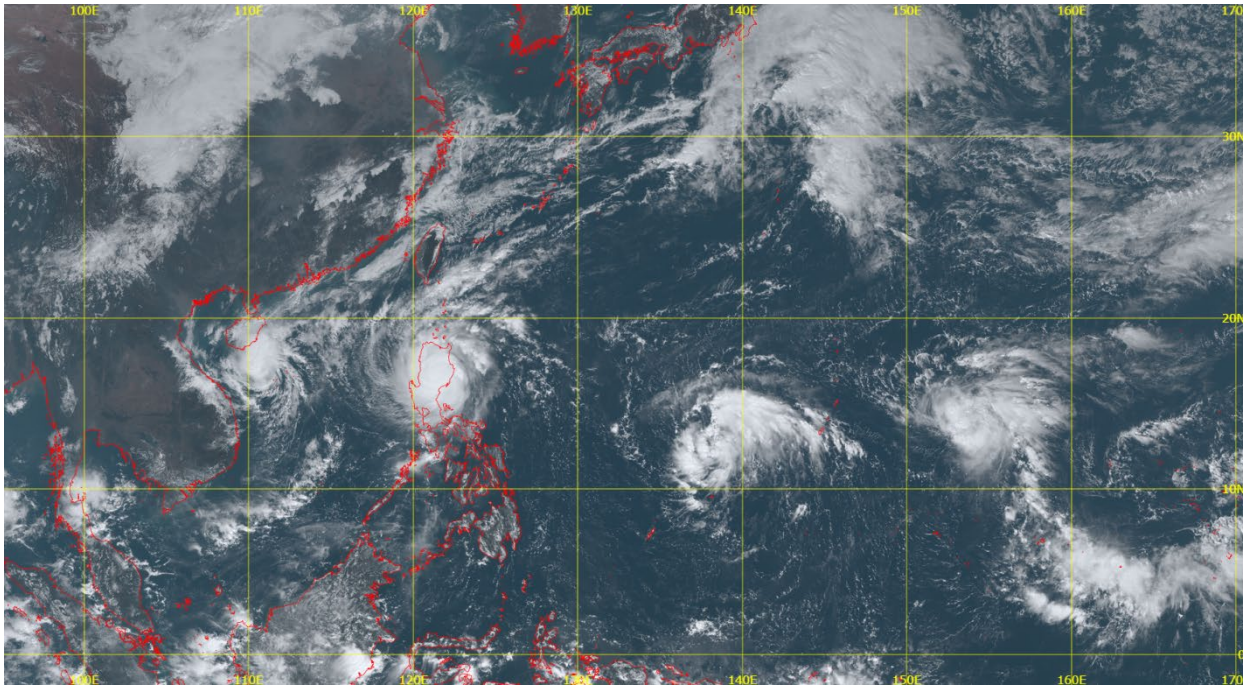
1st time in November ***since 1946***

香港天文台
HONG KONG OBSERVATORY

香港天文台
HONG KONG OBSERVATORY

二零二四年熱帶氣旋

TROPICAL CYCLONES IN 2024



二零二五年七月出版
Published July 2025

香港天文台編製
香港九龍彌敦道134A

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551.515.2:551.506.1(512.317)

封面

二零二四年十一月十一日上午11時左右銀杏(2422)、桃芝(2423)、天兔(2425)及萬宜(2424)的真彩衛星圖片，是北太平洋西部及南海區域自一九六一年以來首次在十一月同時出現四個熱帶氣旋。

〔此衛星圖像接收自日本氣象廳的向日葵9號衛星。〕

Cover

True colour satellite imagery of Yinxing (2422), Toraji (2423), Usagi (2425) and Man-yi (2424) at around 11 a.m. on 11 November 2024, the first time in November where four tropical cyclones occurred concurrently over the western North Pacific and the South China Sea since 1961.

[The satellite imagery was originally captured by Himawari-9 Satellite (H-9) of Japan Meteorological Agency (JMA).]

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第一節　　引言

1.1　熱帶氣旋刊物的沿革

除了在一九四零至一九四六年因二次大戰而中斷外，天文台自一八八四年以來便一直進行地面氣象觀測，並將整理好的數據撮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，該兩刊物被合併並修改成一本名為《香港氣象觀測摘要》的刊物。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。由一九八五年開始，第三冊的覆蓋範圍東面邊界由東經160度伸展至180度。一九八七年，第三冊改稱為《熱帶氣旋年報》，內容大致上維持不變。年報由一九九七年起以中英雙語刊印，一年後加設電腦光碟版，二零零零年以網上版取代印刷版。

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。一九四七至一九六七年的路徑圖則載列於《氣象資料第一冊》內。在早期的刊物內，熱帶氣旋的路徑只顯示每日位置，而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。

為了能回應傳媒、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臨時報告，盡早為有需要的人士提供資料。初時，天文台只就那些曾導致天文台發出烈風或暴風信號或以上的熱帶氣旋編寫臨時報告。自一九六八年起，天文台為所有引致天文台發出熱帶氣旋警告信號的熱帶氣旋編寫臨時報告。

1.2 熱帶氣旋等級

為了讓市民對較強的颱風特別提高警覺，天文台在二零零九年開始將「颱風」分為三級，即「颱風」、「強颱風」和「超強颱風」。根據熱帶氣旋中心附近的最高持續地面風速，熱帶氣旋共分為以下六個級別：

(i) 熱帶低氣壓（T.D.）的最高持續風速為每小時62公里或以下。
(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至149公里。
(v) 強颱風*（S.T.）的最高持續風速為每小時150至184公里。
(vi) 超強颱風*（SuperT.）的最高持續風速為每小時185公里或以上。

1.3 熱帶氣旋命名

從一九四七年至一九九九年，北太平洋西部及南海區域的熱帶氣旋非正式地採用美國軍方「聯合颱風警報中心」所編訂的名單上的名字。由二零零零年開始，日本氣象廳根據一套新名單為每個達到熱帶風暴強度的熱帶氣旋命名。這套名單（表1.1）經颱風委員會通過，共有140個名字，分別由亞太區內14個國家或地區提供。這些名字除了用於為國際航空及航海界發放的預測和警報外，也是向國際傳媒發放熱帶氣旋消息時採用的規範名稱。而名單會每年檢討和更新，通常導致嚴重傷亡的熱帶氣旋會依照受影響國家或地區的要求而被刪除。提供該名字的國家或地區會建議新名字取代。

另外，日本氣象廳在一九八一年起已獲委託為每個在北太平洋西部及南海區域出現而達到熱帶風暴強度的熱帶氣旋編配一個四位數字編號。例如編號“2401”代表在二零二四年區內第一個被日本氣象廳分類為熱帶風暴或更強的熱帶氣旋。在年報內，此編號會顯示在熱帶氣旋名稱後的括弧內，例如颱風艾雲尼（2401）。

二零零九年以前颱風的最高持續風速為每小時118公里或以上。

* 二零零九年新增等級。

1.4 資料來源

年報內的海平面氣壓及地面風資料，是根據天文台氣象站及測風站網絡所錄得的數據。表1.2及1.3分別是該些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。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。

年報內的雨量資料來自天文台氣象站和雨量站網絡及土力工程處的雨量站。

除特別列明外，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；每日雨量為當天香港時間午夜前24小時內的總雨量。

1.5 年報內容

年報第二節是二零二四年所有影響北太平洋西部及南海區域的熱帶氣旋的概述。

年報第三節是二零二四年影響香港的熱帶氣旋的個別詳細報告，內容包括：

(i) 該熱帶氣旋對香港造成的影響；
(ii) 發出熱帶氣旋警告信號的過程；
(iii) 香港各地錄得的最高陣風風速及最高每小時平均風速；
(iv) 香港天文台錄得的最低平均海平面氣壓；
(v) 香港天文台及其他地方錄得的每日總雨量；
(vi) 香港各潮汐測量站錄得的最高潮位及最大風暴潮；及
(vii) 氣象衛星雲圖及雷達圖像。

有關熱帶氣旋的各種資料及統計表載於年報第四節內。

二零二四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，則表列於年報第五節內。

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。至於在熱帶氣旋的敍述中，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。

1.6 香港的熱帶氣旋警告系統

表1.4是香港熱帶氣旋警告信號的定義。

由二零零七年開始，發出3號和8號信號的參考範圍由維多利亞港擴展至由八個涵蓋全港並接近海平面的參考測風站組成的網絡(圖1.1顯示二零二四年所採用的八個參考測風站)。這些測風站處於較為空曠的位置，地理上的考慮也包括山脈地勢的自然分隔，可概括地反映全港的風勢。

當參考網絡中半數或以上的測風站錄得或預料持續風速達到指標的風速限值，而且風勢可能持續時，天文台會考慮發出3號或8號信號。

Section 1 INTRODUCTION

1.1 Evolution of tropical cyclone publications

Apart from a disruption due to World War II 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 "Surface Observations in Hong Kong" and "Summary of Radiosonde-Radiowind Ascents" in 1987 and 1981 respectively. In 1993, both publications were merged into one revised publication entitled "Summary of Meteorological Observations in Hong Kong", including surface as well as upper-air data.

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 to provide information on tropical cyclones over the western North Pacific (WNP) and the South China Sea (SCS). The first issue, published in 1971, contained reports on tropical cyclones in 1968 within the area bounded by the Equator, 45°N, 100°E and 160°E. 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 YYYY" but its contents remained largely the same. Starting from 1997, the series was published in both Chinese and English. The CD-ROM version of the publication first appeared in 1998 and the printed version was replaced by the Internet version in 2000.

Tracks of tropical cyclones in the WNP and the SCS were published in "Meteorological Results" up to 1939 and in "Meteorological Results Part I" from 1947 to 1967. In earlier publications, only daily positions were plotted on the tracks and the time of the daily positions varied to some extent, but then remained fixed at 0000 UTC after 1944. Details of the changes 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 were prepared since 1960 to provide early information to meet the needs of the press, shipping companies and others. These reports were printed and supplied on request. Initially, provisional reports were only available for tropical cyclones for which gale or storm signals or above had been issued in Hong Kong. From 1968 onwards, provisional reports were prepared for all tropical cyclones that necessitated the issuance of tropical cyclone warning signals.

1.2 Classification of tropical cyclones

To enhance public awareness of stronger typhoons, the Observatory further categorised 'Typhoon' into three levels, namely 'Typhoon', 'Severe Typhoon' and 'Super Typhoon', starting from 2009. Tropical cyclones are now classified into the following six categories according to the maximum sustained surface winds near their centres:

(a) A TROPICAL DEPRESSION (T.D.) has maximum sustained winds of 62 km/h or below.
(b) A TROPICAL STORM (T.S.) has maximum sustained winds in the range 63-87 km/h.
(c) A SEVERE TROPICAL STORM (S.T.S.) has maximum sustained winds in the range 88-117 km/h.
(d) A TYPHOON# (T.) has maximum sustained winds of 118-149 km/h.
(e) A SEVERE TYPHOON* (S.T.) has maximum sustained winds of 150-184 km/h.
(f) A SUPER TYPHOON* (SuperT.) has maximum sustained winds of 185 km/h or more.

1.3 Naming of tropical cyclones

Over the WNP and the SCS between 1947 and 1999, tropical cyclone names were assigned by the U.S. Armed Forces' Joint Typhoon Warning Center according to a pre-determined but unofficial list. With effect from 2000, the Japan Meteorological Agency has been assigned the responsibility to name tropical cyclones attaining tropical storm intensity according to a new list adopted by the Typhoon Committee. It contains a total of 140 names contributed by 14 countries or territories within the Asia Pacific region (Table 1.1). Apart from being used in forecasts and warnings issued to the international aviation and shipping communities, the names are also used officially in information on tropical cyclones issued to the international press. The list is reviewed every year, and usually names of tropical cyclones that have caused serious damage or casualty will be retired upon the requests of countries or territories affected. Countries or territories providing those names will then propose new names as replacement.

Besides, since 1981, Japan Meteorological Agency has been delegated with the responsibility of assigning to each tropical cyclone in the WNP and the SCS attaining tropical storm intensity a numerical code of four digits. For example, the first tropical cyclone of tropical storm intensity or above, as classified by Japan Meteorological Agency, within the region in 2024 was assigned the code "2401". In this report, the associated code immediately follows the name of the tropical cyclone in bracket, e.g. Typhoon Ewiniar (2401).

Prior to 2009, the maximum sustained winds of typhoon was defined to be 118 km/h or more.

* New categories adopted since 2009.

1.4 Data sources

Mean sea level pressure and surface wind data presented in this report were obtained from a network of meteorological stations and anemometers operated by the Hong Kong Observatory. Details of such stations, including their positions and elevations, are listed respectively in Tables 1.2 and 1.3.

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

Rainfall data presented in this report were obtained from a network of meteorological and rainfall stations operated by the Hong Kong Observatory, as well as raingauges operated by the Geotechnical Engineering Office.

Throughout this report, maximum sustained surface winds when used without qualification refer to wind speeds averaged over a period of 10 minutes. Hourly mean 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.

1.5 Content

In Section 2, an overview of all the tropical cyclones over the WNP and the SCS in 2024 is presented.

The reports in Section 3 are individual accounts of the life history of tropical cyclones affecting Hong Kong in 2024. 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 mean 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 and radar imageries.

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 in 2024 are tabulated in Section 5.

In this report, different time references are used depending on the 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.

1.6 Hong Kong's Tropical Cyclone Warning System

Table 1.4 shows the meaning of tropical cyclone warning signals in Hong Kong.

Starting from 2007, the reference for the issuance of No.3 and No.8 signals has been expanded from the Victoria Harbour to a network of eight near-sea level reference anemometers covering the whole of Hong Kong. The eight reference anemometers adopted in 2024 are depicted in Figure 1.1. The reference anemometers have good exposure and geographical distribution, taking into account the physical separation created by Hong Kong's natural terrain. Together, they are used to represent the overall wind condition in Hong Kong.

The Observatory will consider issuing the No. 3 or No. 8 signal, as the case may be, when half or more anemometers in the reference network register or are expected to register sustained strong winds or gale/storm force winds, and that the windy conditions are expected to persist.

表 1.1　　二零二四年起生效的熱帶氣旋名單

TABLE 1.1　　Tropical cyclone name list effective from 2024

來源	Contributed by	I	II	III	IV	V
		名字 Name	名字 Name	名字 Name	名字 Name	名字 Name
柬埔寨	Cambodia	達維 Damrey	康妮 Kong-rey	娜基莉 Nakri	科羅旺 Krovanh	翠絲 Trases
中國	China	海葵 Haikui	銀杏 Yinxing	風神 Fengshen	杜鵑 Dujuan	木蘭 Mulan
朝鮮	DPR Korea	鴻雁 Kirogi	桃芝 Toraji	海鷗 Kalmaegi	舒力基 Surigae	米雷 Meari
中國香港	Hong Kong, China	鴛鴦 Yun-yeung	萬宜 Man-yi	鳳凰 Fung-wong	彩雲 Choi-wan	青馬 Tsing-ma
日本	Japan	小犬 Koinu	天兔 Usagi	天琴 Koto	小熊 Koguma	蝎虎 Tokage
老撾	Lao PDR	布拉萬 Bolaven	帕布 Pabuk	洛鞍 Nokaen	薔琵 Champi	坡鹿 Ong-mang
中國澳門	Macau, China	三巴 Sanba	蝴蝶 Wutip	西望洋 Penha	煙花 In-fa	梅花 Muifa
馬來西亞	Malaysia	杰拉華 Jelawat	聖帕 Sepat	鸚鵡 Nuri	查帕卡 Cempaka	苗柏 Merbok
米克羅尼西亞	Micronesia	艾雲尼 Ewiniar	木恩 Mun	森拉克 Sinlaku	尼伯特 Nepartak	南瑪都 Nanmadol
菲律賓	Philippines	馬力斯 Maliksi	丹娜絲 Danas	黑格比 Hagupit	盧碧 Lupit	塔拉斯 Talas
韓國	RO Korea	格美 Gaemi	百合 Nari	薔薇 Jangmi	銀河 Mirinae	核桃 Hodu
泰國	Thailand	派比安 Prapiroon	韋帕 Wipha	米克拉 Mekkhala	妮妲 Nida	玫瑰 Kulap
美國	U.S.A.	瑪莉亞 Maria	范斯高 Francisco	海高斯 Higos	奧麥斯 Omais	洛克 Roke
越南	Viet Nam	山神 Son-Tinh	竹節草 Co-May	巴威 Bavi	浮蓮 Luc-Binh	桑卡 Sonca
柬埔寨	Cambodia	安比 Ampil	羅莎 Krosa	美莎克 Maysak	燦都 Chanthu	納沙 Nesat
中國	China	悟空 Wukong	白鹿 Bailu	海神 Haishen	電母 Dianmu	海棠 Haitang
朝鮮	DPR Korea	雲雀 Jongdari	楊柳 Podul	紅霞 Noul	蒲公英 Mindulle	蜻蜓 Jamjari
中國香港	Hong Kong, China	珊珊 Shanshan	玲玲 Lingling	白海豚 Dolphin	獅子山 Lionrock	榕樹 Banyan
日本	Japan	摩羯 Yagi	劍魚 Kajiki	鯨魚 Kujira	道璣 Tokei	山貓 Yamaneko
老撾	Lao PDR	麗琵 Leepi	藍湖 Nongfa	燦鴻 Chan-hom	南川 Namtheun	帕卡 Pakhar

表 1.1 (續)

TABLE 1.1 (cont'd)

來源	Contributed by	I 名字 Name	II 名字 Name	III 名字 Name	IV 名字 Name	V 名字 Name
中國澳門	Macau, China	貝碧嘉 Bebinca	琵琶 Peipah	琵鷺 Peilou	瑪瑙 Malou	珊瑚 Sanvu
馬來西亞	Malaysia	普拉桑 Pulasan	塔巴 Tapah	浪卡 Nangka	妮亞圖 Nyatoh	瑪娃 Mawar
米克羅尼西亞	Micronesia	蘇力 Soulik	米娜 Mitag	沙德爾 Saudel	沙布爾 Sarbul	古超 Guchol
菲律賓	Philippines	西馬侖 Cimaron	樺加沙 Ragasa	紫檀 Narra	阿穆丘 Amuyao	泰利 Talim
韓國	RO Korea	飛燕 Jebi	浣熊 Neoguri	簡拉維 Gaenari	古莎莉 Gosari	杜蘇芮 Doksuri
泰國	Thailand	山陀兒 Krathon	博羅依 Bualoi	艾莎尼 Atsani	暹芭 Chaba	卡努 Khanun
美國	U.S.A.	百里嘉 Barijat	麥德姆 Matmo	艾濤 Etau	艾利 Aere	蘭恩 Lan
越南	Viet Nam	潭美 Trami	夏浪 Halong	班朗 Bang-Lang	桑達 Songda	蘇拉 Saola

註： 在二零二四年，西北太平洋和南海的熱帶氣旋名單新增九個名字：「蜻蜓」、「青馬」、「道璣」、「坡鹿」、「阿穆丘」、「古莎莉」、「核桃」、「沙布爾」及「浮蓮」，分別取代舊有名字：「尼格」、「馬鞍」、「圓規」、「軒嵐諾」、「馬勒卡」、「鮎魚」、「奧鹿」、「雷伊」及「康森」。

Note: In 2024, nine new names, Jamjari, Tsing-ma, Tokei, Ong-mang, Amuyao, Gosari, Hodu, Sarbul and Luc-Binh, have been introduced to the list of tropical cyclone names in the WNP and the SCS to replace the old names of Nalgae, Ma-on, Kompasu, Hinnamnor, Malakas, Megi, Noru, Rai and Conson respectively.

表 1.2 年報內各氣壓表的海拔高度及所處氣象站的位置

TABLE 1.2 Elevations of various barometers and positions of weather stations mentioned in this annual report

站 Station		位置 Position		氣壓表的海拔高度(米)
		北緯 Latitude N	東經 Longitude E	Elevation of barometer above M.S.L. (m)
香港天文台總部	Hong Kong Observatory Headquarters	22°18′07″	114°10′27″	40
香港國際機場	Hong Kong International Airport	22°18′34″	113°55′19″	7
長洲	Cheung Chau	22°12′04″	114°01′36″	79
京士柏	King's Park	22°18′43″	114°10′22″	66
流浮山	Lau Fau Shan	22°28′08″	113°59′01″	36
坪洲	Peng Chau	22°17′28″	114°02′36″	35
沙田	Sha Tin	22°24′09″	114°12′36″	13
上水	Sheung Shui	22°30′07″	114°06′40″	11
打鼓嶺	Ta Kwu Ling	22°31′43″	114°09′24″	14
大埔(元洲仔公園)	Tai Po (Yuen Chau Tsai Park)	22°26′54″	114°10′38″	5
橫瀾島	Waglan Island	22°10′56″	114°18′12″	60

表 1.3　　年報內各風速表的海拔高度及所處氣象站的位置

TABLE 1.3　Elevations of various anemometers and positions of the weather stations mentioned in this annual report

站 Station		位置 Position		風速表的海拔高度(米) Elevation of anemometer above M.S.L. (m)
		北緯 Latitude N	東經 Longitude E	
黃麻角(赤柱)	Bluff Head (Stanley)	22°11’51”	114°12’43”	103
中環碼頭	Central Pier	22°17’20”	114°09’21”	30
長洲*	Cheung Chau*	22°12’04”	114°01’36”	99
長洲泳灘	Cheung Chau Beach	22°12’39”	114°01’45”	27
青洲	Green Island	22°17’06”	114°06’46”	107
香港國際機場*	Hong Kong International Airport*	22°19'40”	113°53'52”	15#
啟德*	Kai Tak*	22°18’35”	114°12’48”	16
京士柏	King’s Park	22°18’43”	114°10’22”	90
南丫島	Lamma Island	22°13’34”	114°06’31”	17
流浮山*	Lau Fau Shan*	22°28’08”	113°59’01”	50
昂坪	Ngong Ping	22°15’31”	113°54’46”	607
北角	North Point	22°17’40”	114°11’59”	26
坪洲	Peng Chau	22°17’28”	114°02’36”	47
平洲	Ping Chau	22°32’48”	114°25’42”	39
西貢*	Sai Kung*	22°22’32”	114°16’28”	32
沙洲	Sha Chau	22°20’45”	113°53’28”	31
沙螺灣	Sha Lo Wan	22°17’28”	113°54’25”	71
沙田*	Sha Tin*	22°24’09”	114°12’36”	16
石崗	Shek Kong	22°26’10”	114°05’05”	26
九龍天星碼頭	Star Ferry (Kowloon)	22°17’35”	114°10’07”	18
打鼓嶺*	Ta Kwu Ling*	22°31’43”	114°09’24”	28
大美督	Tai Mei Tuk	22°28’31”	114°14’15”	71
大帽山	Tai Mo Shan	22°24’38”	114°07’28”	966
大埔滘	Tai Po Kau	22°26’33”	114°11’02”	12
塔門東	Tap Mun East	22°28’06”	114°21’47”	48
大老山	Tate's Cairn	22°21’28”	114°13’04”	587
將軍澳	Tseung Kwan O	22°18’57”	114°15’20”	52
青衣島蜆殼油庫*	Tsing Yi Shell Oil Depot*	22°20’48”	114°05’11”	43
屯門政府合署	Tuen Mun Government Offices	22°23’26”	113°58’36”	69
橫瀾島	Waglan Island	22°10’56”	114°18’12”	83
濕地公園	Wetland Park	22°28’00”	114°00’32”	15
黃竹坑	Wong Chuk Hang	22°14’52”	114°10’25”	30

由二零二四年三月二十五日開始，風速表由中跑道近中間位置遷移至新北跑道近中間位置。

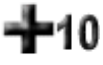
The anemometer has been moved from the middle of the Centre Runway to the middle of the new North Runway since 25 March 2024.

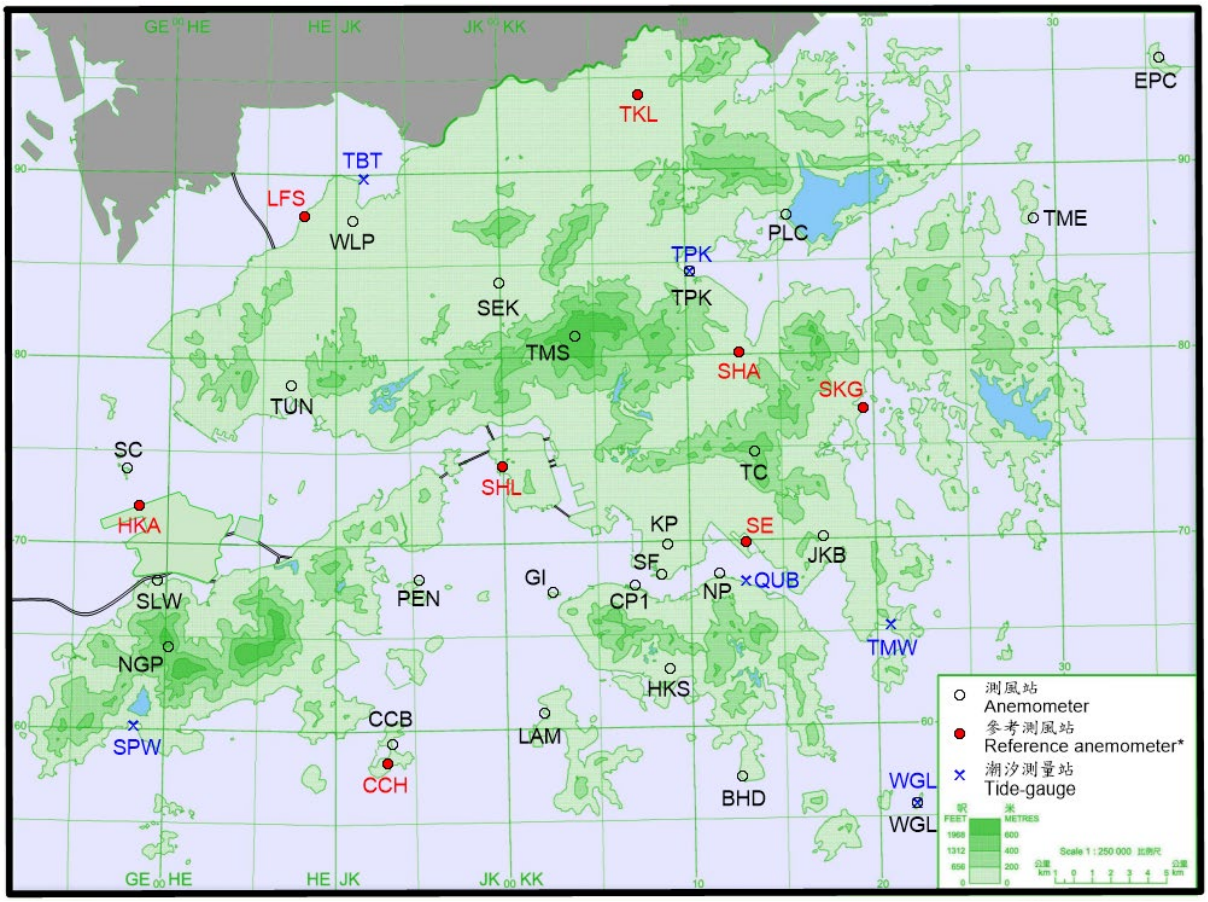
* 參考測風站

* Reference anemometer

表 1.4　　二零二四年香港熱帶氣旋警告信號的意義

TABLE 1.4　　Meaning of tropical cyclone warning signals in Hong Kong in 2024

信號 Signals		顯示符號 Symbol Display	信號的意義 Meaning of Signals
戒備 Standby	1		有一熱帶氣旋集結於香港約800公里的範圍內，可能影響本港。 A tropical cyclone is centred within about 800 kilometres (km) of Hong Kong and may affect the territory.
強風 Strong Wind	3		香港近海平面處現正或預料會普遍吹強風，持續風力達每小時41至62公里，陣風更可能超過每小時110公里，且風勢可能持續。 Strong wind is blowing or expected to blow generally in Hong Kong near sea level, with a sustained speed of 41-62 kilometres per hour (km/h), and gusts which may exceed 110 km/h, and the wind condition is expected to persist.
西北 烈風或暴風 NW'LY Gale or Storm	8 西北 NW		香港近海平面處現正或預料會普遍受烈風或暴風從信號所示方向吹襲，持續風力達每小時 63 至 117 公里，陣風更可能超過每小時 180 公里，且風勢可能持續。 Gale or storm force wind is blowing or expected to blow generally in Hong Kong near sea level, with a sustained wind speed of 63-117 km/h from the quarter indicated and gusts which may exceed 180 km/h, and the wind condition is expected to persist.
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		烈風或暴風的風力現正或預料會顯著加強。 Gale or storm force wind is increasing or expected to increase significantly in strength.
颶風 Hurricane	10		風力現正或預料會達到颶風程度，持續風力達每小時118公里或以上，陣風更可能超過每小時220公里。 Hurricane force wind is blowing or expected to blow with sustained speed reaching 118 km/h or above and gusts that may exceed 220 km/h.



* 熱帶氣旋警告系統的參考測風站網絡

* Network of reference anemometers in the tropical cyclone warning system

測風站 Anemometers		測風站 Anemometers	
BHD	黃麻角(赤柱) Bluff Head (Stanley)	TMS	大帽山 Tai Mo Shan
CCB	長洲泳灘 Cheung Chau Beach	TUN	屯門政府合署 Tuen Mun Government Offices
CP1	中環碼頭 Central Pier	WLP	濕地公園 Wetland Park
EPC	平洲 Ping Chau	WGL	橫瀾島 Waglan Island
GI	青洲 Green Island	**參考測風站* Reference anemometers***	
HKS	黃竹坑 Wong Chuk Hang	CCH	長洲 Cheung Chau
JKB	將軍澳 Tseung Kwan O	LFS	流浮山 Lau Fau Shan
KP	京士柏 King's Park	HKA	香港國際機場 Hong Kong International Airport
LAM	南丫島 Lamma Island	SE	啟德 Kai Tak
NGP	昂坪 Ngong Ping	SHA	沙田 Sha Tin
NP	北角 North Point	SHL	青衣島蜆殼油庫 Tsing Yi Shell Oil Depot
PEN	坪洲 Peng Chau	SKG	西貢 Sai Kung
PLC	大美督 Tai Mei Tuk	TKL	打鼓嶺 Ta Kwu Ling
SC	沙洲 Sha Chau	**潮汐測量站 Tide-gauge**	
SEK	石崗 Shek Kong	QUB	鰂魚涌 Quarry Bay
SF	九龍天星碼頭 Star Ferry (Kowloon)	SPW	石壁 Shek Pik
SLW	沙螺灣 Sha Lo Wan	TBT	尖鼻咀 Tsim Bei Tsui
TME	塔門東 Tap Mun East	TMW	大廟灣 Tai Miu Wan
TC	大老山 Tate's Cairn	TPK	大埔滘 Tai Po Kau
TPK	大埔滘 Tai Po Kau	WGL	橫瀾島 Waglan Island

圖1.1　　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 annual report

第二節　　二零二四年熱帶氣旋概述

2.1　二零二四年的熱帶氣旋回顧

2.1.1　北太平洋西部(包括南海區域)的熱帶氣旋

二零二四年有29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），接近1961-2020年約30個的長期年平均數目。全年有13個熱帶氣旋達到颱風或以上強度，略少於1961-2020年約15個的長期年平均數目，其中有八個熱帶氣旋更達到超強颱風程度(中心附近最高持續風速達到每小時185公里或以上)。

圖2.1是二零二四年在北太平洋西部及南海區域熱帶氣旋數目之逐月分佈。

二零二四年內有八個熱帶氣旋在中國登陸，其中一個在香港300公里內的華南沿岸登陸，三個橫過台灣。八個登陸菲律賓及五個登陸越南。九月的超強颱風摩羯(2411)（圖2.3）是二零二四年北太平洋西部及南海區域最強的熱帶氣旋，其中心附近最高持續風速估計為每小時230公里，而最低海平面氣壓為915百帕斯卡（表4.1）。十一月的銀杏(2422)、桃芝(2423)、天兔(2425)及萬宜(2424)曾同時在北太平洋西部及南海區域出現，是自一九六一年以來首次在十一月該區同時出現四個熱帶氣旋（圖2.4）。

2.1.2　香港責任範圍內的熱帶氣旋

在二零二四年的29個熱帶氣旋中，有17 個出現在香港責任範圍（即北緯10至30度、東經105至125度），接近1961-2020年約16個的長期年平均數目（表2.1），當中有五個在香港責任範圍內形成。年內，天文台總共發出485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

二零二四年共有14個熱帶氣旋影響南海區域（即北緯10至25度、東經105至120度），略多於1961-2020年約12個的長期年平均數目，當中有五個在該區域形成。

九月六日超強颱風摩羯(2411)（圖2.3）的中心附近最高持續風速估計為每小時230公里，是天文台自一九五零年有記錄以來南海區域第二強的熱帶氣旋，僅次於二零一四年的超強颱風威馬遜，與二零二三年的超強颱風蘇拉並列。

2.1.4　影響香港的熱帶氣旋

二零二四年香港的風季始於五月三十日，隨著熱帶氣旋馬力斯(2402)於當日傍晚在南海中部上形成並向北移向廣東西部沿岸，天文台發出一號戒備信號。熱帶氣旋萬宜(2424)於十一月十九日晚上遠離本港及減弱，二零二四年風季隨著天文台當天取消所有熱帶氣旋警告信號而結束。

年內共有七個熱帶氣旋影響香港（圖2.2），略多於1961-2020年約六個的長期年平均數目（表2.2）。這七個熱帶氣旋分別為五月至六月的熱帶風暴馬力斯(2402)、七月的強烈熱帶風暴派比安(2404)、九月的超強颱風摩羯(2411)、十月的颱風潭美(2420)、十一月的超強颱風銀杏(2422) 、颱風桃芝(2423)及超強颱風萬宜(2424)。天文台在摩羯及桃芝吹襲香港期間，分別在九月五日及十一月十三日發出八號烈風或暴風信號，是年內發出的最高熱帶氣旋警告信號。其中天文台在桃芝吹襲本港期間發出的八號烈風或風暴信號，是自一九四六年以來年內最遲發出的八號熱帶氣旋警告信號。馬力斯、潭美及銀杏吹襲本港期間天文台曾發出三號強風信號。而派比安及萬宜影響本港期間，天文台需要發出一號戒備信號。

在風季末段，銀杏、桃芝及萬宜接二連三影響香港，引致天文台自一九四六年以來首次在十一月三度發出熱帶氣旋警告信號（表4.3）。

2.1.5 熱帶氣旋的雨量

二零二四年熱帶氣旋為香港帶來的雨量(即由熱帶氣旋出現於香港600公里範圍內至其消散或離開香港600公里範圍之後72小時期間天文台總部錄得的雨量）共為724.9毫米（表4.8.1），約佔年內總雨量2309.7毫米的百分之31.4，接近1961-2020年長期年平均值704.2毫米。

根據上述的定義，超強颱風摩羯(2411)為香港帶來的雨量為198.3毫米（表4.8.1），是年內雨量最多的熱帶氣旋。

2.2 每月概述

這一節逐月介紹二零二四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及傷亡報告則詳述於第三節。

一月至四月

二零二四年一月至四月並無熱帶氣旋在北太平洋西部及南海區域上形成。

五月至六月

熱帶低氣壓艾雲尼(2401)於五月二十四日早上在馬尼拉之東南約990公里的北太平洋西部上形成，採取西北路徑橫過菲律賓。艾雲尼於五月二十六日逐漸轉向東北移動，並迅速增強。當晚艾雲尼增強為颱風並達到其最高強度，中心附近最高持續風速估計為每小時140公里。隨後三日艾雲尼橫過琉球群島以南海域並逐漸減弱，最後於五月三十日下午在日本以南的北太平洋西部上演變為溫帶氣旋。

根據報章報導，艾雲尼為菲律賓帶來狂風暴雨，造成六人死亡，八人受傷，超過15萬人受災，經濟損失超過10.4億菲律賓比索。

熱帶低氣壓馬力斯(2402)於五月三十日傍晚在香港之西南偏南約650公里的南海中部上形成，大致向北移動，移向廣東西部沿岸。翌日下午馬力斯增強為熱帶風暴並達到其最高強度，中心附近最高持續風速估計為每小時65公里。馬力斯於六月一日凌晨在廣東陽江市登陸，隨後向東北偏北移入廣東內陸，並逐漸減弱，最後於當日傍晚減弱為低壓區。

根據報章報導，馬力斯為廣東廣州、佛山、茂名等地帶來狂風暴雨，廣州及深圳部分客船停航。

七月

一個熱帶低氣壓於七月十三日傍晚在峴港之東南偏東約570公里的南海南部上形成，中心附近最高持續風速估計為每小時45公里。該熱帶低氣壓在隨後兩天大致向西北移動，最後於七月十五日晚上在越南中部減弱為低壓區。

熱帶低氣壓派比安(2404)於七月十九日下午在西沙之東南偏東約630公里的南海中部上形成，向西北偏西移動，橫過南海中部。派比安於七月二十一日早上增強為熱帶風暴，並轉向西北偏北移動，移向海南島。當晚派比安登陸海南島前進一步增強為強烈熱帶風暴。派比安於七月二十二日凌晨在海南島萬寧市登陸，並在橫過海南島期間稍為減弱為熱帶風暴。派比安在橫過北部灣期間再次增強為強烈熱帶風暴，並於七月二十二日傍晚達到其最高強度，中心附近最高持續風速估計為每小時105公里。派比安於七月二十三日早上在越南北部登陸，隨後移入內陸並逐漸減弱，最後於當晚減弱為低壓區。

根據報章報導，派比安為海南島帶來狂風暴雨，當地多處有樹木倒塌，超過22萬戶停電。

熱帶低氣壓格美(2403)於七月十九日晚上在馬尼拉以東約1 090公里的北太平洋西部上形成，向西北或西北偏西移動，橫過菲律賓以東海域並逐漸增強。七月二十二日格美轉向偏北移向台灣以東海域，並於當晚增強為颱風。翌日晚上格美轉向西北移向台灣。格美於七月二十四日增強為超強颱風，達到其最高強度，中心附近最高持續風速估計為每小時195公里。受台灣的地形影響，格美當晚在台灣以東沿岸海域徘徊，以逆時針方向轉了一個圈。隨後格美於七月二十五日凌晨橫過台灣期間減弱為強颱風。當晚格美在福建省莆田市登陸，並進一步減弱為強烈熱帶風暴。隨後兩天格美大致向西北或西北偏西移動，移入內陸並繼續減弱。最後格美於七月二十八日早上在湖北減弱為低壓區。

根據報章報導，派比安、格美及西南季候風為菲律賓帶來連日狂風暴雨，合共造成53人死亡或失蹤，16人受傷，超過640萬人受災，超過9 700間房屋受損，經濟損失超過103億菲律賓比索。格美吹襲台灣期間，高雄茂林錄得二十四小時雨量1 217.5毫米。狂風暴雨造成12人死亡或失蹤，超過900人受傷，超過16萬戶停水及87萬戶停電，經濟損失超過1.1億美元。格美在福建、浙江、江西、廣東造成超過147萬人受災，經濟損失超過57億人民幣。此外，受格美的殘餘影響，湖南錄得破紀錄的二十四小時雨量642.5毫米，暴雨造成94人死亡或失蹤，超過121萬人受災，經濟損失超過86億人民幣。

八月至十一月

熱帶低氣壓瑪莉亞(2405)於八月七日凌晨在東京以南約1 140公里的北太平洋西部上形成，向偏東方向移動。瑪莉亞於八月八日凌晨增強為熱帶風暴，轉向偏北移向日本本州以東海域，並於當晚進一步增強為強烈熱帶風暴。瑪莉亞於八月九日凌晨達到其最高強度，中心附近最高持續風速為每小時110公里。瑪莉亞於翌日晚上減弱為熱帶風暴，但於八月十一日再次增強為強烈熱帶風暴，並轉向西北偏西或西北移動。瑪莉亞於翌日橫過日本本州東北地區並逐漸減弱。最後瑪莉亞於八月十三日早上在日本本州以北海域減弱為低壓區。

根據報章報導，瑪莉亞為日本本州東北地區帶來狂風暴雨，岩手縣久慈市錄得破紀錄的四十八小時雨量481.5毫米。至少2 000人需要撤離，超過200戶停水及4 000戶停電。鐵路及航空交通受影響，至少80班航班取消。

熱帶低氣壓山神(2406)於八月十日晚上在硫黃島之東北偏東約1 220公里的北太平洋西部上形成，初時向東北偏東移動。山神於八月十一日早上轉向偏北方向移動，於當晚增強為熱帶風暴，並達到其最高強度，中心附近最高持續風速為每小時65公里，隨後於翌日轉向西北移向日本本州以東海域。山神於八月十三日逐漸減弱，最後於翌日凌晨在日本本州以東海域減弱為低壓區。

熱帶低氣壓安比(2407)於八月十二日早上在硫黃島之西南偏西約620公里的北太平洋西部上形成，向東北移動。安比於八月十四日轉向北橫過日本本州以南海域，並逐漸增強。安比於八月十六日凌晨增強為強颱風，於早上達到其最高強度，中心附近最高持續風速為每小時175公里，並轉向東北橫過日本本州以東海域。隨後兩天安比向東北偏東或東北移動，並於八月十八日迅速減弱為強烈熱帶風暴。安比最後於八月十九日早上在日本以東的北太平洋西部演變為溫帶氣旋。

根據報章報導，安比為日本本州東部帶來狂風暴雨，造成四人受傷，超過13 000戶停電。鐵路及航空交通受影響，至少900班航班取消。

熱帶低氣壓悟空(2408)於八月十二日下午在硫黃島以東約760公里的北太平洋西部上形成，大致向偏北方向移動。悟空於八月十三日早上增強為熱帶風暴，並達到其最高強度，中心附近最高持續風速為每小時65公里。悟空於翌日下午減弱為熱帶低氣壓，最後於八月十五日晚上在日本本州以東海域演變為溫帶氣旋。

熱帶低氣壓雲雀(2409)於八月十八日早上在沖繩島之西南約270公里的北太平洋西部上形成，隨後兩天採取偏北路徑橫過東海及黃海，移向朝鮮半島一帶。雲雀於八月十八日晚上增強為熱帶風暴，並於八月二十日凌晨達到其最高強度，中心附近最高持續風速為每小時75公里。當天下午雲雀逐漸減弱。八月二十一日早上雲雀在朝鮮半島西岸登陸，最後於當天下午減弱為低壓區。

根據報章報導，在雲雀吹襲韓國期間，有一人受傷。來往濟州島的渡輪服務暫停。濟州國際機場有超過100班航班延誤。

熱帶低氣壓珊珊(2410)於八月二十一日下午在硫黃島之東南偏南約960公里的北太平洋西部上形成，初時向西北偏西移動，隨後兩天轉向偏北緩慢移動，並逐漸增強。珊珊於八月二十四日開始加速，掠過硫黃島以南海域。八月二十五日凌晨珊珊轉向西北或西北偏西移向琉球群島一帶，並於翌日下午增強為颱風。珊珊於八月二十七日早上迅速增強為強颱風，於當晚進一步增強為超強颱風，並達到其最高強度，中心附近最高持續風速為每小時185公里。翌日珊珊轉向北移向日本九州，並逐漸減弱。珊珊於八月二十九日早上在日本九州登陸，並於下午迅速減弱為強烈熱帶風暴。隨後兩天珊珊轉向偏東**橫過日本四國及本州**南部沿岸地區，最後於九月一日下午在日本本州以南沿岸海域減弱為低壓區。

根據報章報導，珊珊為日本多地帶來狂風暴雨，九州宮崎縣美**鄉町市錄得七十二小時**雨量821毫米，宮崎縣有疑似龍捲風報告。珊珊在日本造成八人死亡，133人受傷，超過 1 300間房屋受損，超過2 100戶停水及28萬戶停電，陸空交通受嚴重影響，有超過2 000班航班取消。

熱帶低氣壓摩羯(2411)於九月一日早上在馬尼拉之東南偏東約560公里的菲律賓中部以東海域上形成，向西北移向呂宋，並於當晚增強為熱帶風暴。翌日摩羯橫過呂宋，並於九月三日進入南海北部。隨後摩羯採取偏西路徑，橫過南海北部。在非常溫暖的海水加上微弱的垂直風切變等有利條件下，摩羯於九月四日由強烈熱帶風暴迅速增強為超強颱風。摩羯於九月六日凌晨達到其最高強度，中心附近最高持續風速估計為每小時230公里，成為天文台自一九五零年有記錄以來，南海區域第二強的熱帶氣旋，與二零二三年的超強颱風蘇拉並列。摩羯於當日早上轉向西北偏西移向海南島，並於傍晚在海南島文昌市附近登陸。摩羯於翌日繼續以超強颱風強度橫過北部灣，並於下午在越南北部登陸，隨後移入越南北部內陸並迅速減弱。最後摩羯於九月八日晚上減弱為低壓區。

根據報章報導，摩羯掠過菲律賓期間，造成21人死亡，26人失蹤，22人受傷，超過300萬人受災，超過7 000間房屋受損，經濟損失超過26億菲律賓比索。摩羯在廣東、廣西及海南亦造成超過270萬人受災，超過45萬人需要撤離，其中海南有四人死亡及95人受傷，超過32 000間房屋受損，超過16萬棵樹木倒塌，經濟損失超過786億元人民幣。而摩羯及其殘餘相繼為越南、老撾、泰國及緬甸帶來傾盆大雨，引致多處山洪暴發。越南有至少323人死亡，22人失蹤，1 978人受傷，超過360萬人受災，超過28萬間房屋受損，經濟損失超過81萬億越南盾。老撾有至少七人死亡，超過18萬人受災，經濟損失超過790萬美元。泰國有至少52人死亡及28人受傷。緬甸有至少360人死亡，100人失蹤，48人受傷，超過110萬人受災，超過14萬間房屋受損。

霍恩在北太平洋中部上形成，於九月三日早上以熱帶低氣壓強度越過國際換日線進入北太平洋西部，當時霍恩中心附近最高持續風速估計為每小時55公里，向西北偏北移動，並逐漸減弱。最後霍恩於九月四日早上在海上減弱為低壓區。

熱帶低氣壓麗琵(2412)於九月三日早上在硫黃島以東約600公里的北太平洋西部上形成，向偏北移向日本以東海域。麗琵於九月五日早上增強為熱帶風暴，並達到其最高強度，中心附近最高持續風速為每小時65公里。隨後麗琵轉向東北移動，最後於九月七日凌晨在日本以東的北太平洋西部演變為溫帶氣旋。

熱帶低氣壓貝碧嘉(2413)於九月十日早上在關島之東南約360公里的北太平洋西部上形成，大致向西北移向琉球群島一帶，並逐漸增強。九月十二日貝碧嘉在硫黃島以南海域增強為強烈熱帶風暴，但於翌日減弱為熱帶風暴。貝碧嘉於九月十三日晚上再次增強，於翌日以強烈熱帶風暴強度橫過琉球群島一帶。九月十五日貝碧嘉進一步增強為颱風，並轉向西北偏西移向長江口一帶。當晚貝碧嘉達到其最高強度，中心附近最高持續風速為每小時145公里。貝碧嘉維持最高強度於九月十六日早上在上海浦東登陸。根據中國氣象局，貝碧嘉是自一九四九年有記錄以來登陸上海最強的熱帶氣旋。貝碧嘉隨後移入內陸並迅速減弱，最後於九月十八日凌晨在安徽與河南交界一帶減弱為低壓區。

根據報章報導，貝碧嘉及其殘餘為上海、浙江、江蘇、安徽、河南及山東帶來狂風暴雨，造成四人死亡，超過130萬人受災，超過100萬人需要撤離，超過五萬公頃農作物受災，經濟損失超過5 500億人民幣。航空及海上交通受影響，上海浦東及虹橋國際機場有918班航班取消，浙江沿海港口有153條渡輪航線暫停。

熱帶低氣壓普拉桑(2414)於九月十五日晚上在硫黃島之東南偏南約1 360公里的北太平洋西部上形成，大致向西北移向琉球群島一帶，並逐漸增強。普拉桑於九月十六日晚上增強為熱帶風暴，並於翌日早上達到其最高強度，中心附近最高持續風速為每小時85公里。隨後兩天普拉桑橫過琉球群島一帶及東海。普拉桑於九月十九日晚上在上海浦東登陸，成為繼貝碧嘉後四天內第二個登陸上海的熱帶氣旋。普拉桑隨後逐漸減弱，並於翌日轉向東北至東北偏東移入黃海，最後於九月二十一日下午在朝鮮半島西南沿岸海域演變為溫帶氣旋。

根據報章報導，受普拉桑影響，浙江、上海、江西、福建及江蘇等地出現連場暴雨，有超過35萬人受災，超過33萬人需要撤離。在上海，超過5 400公頃農作物受災，經濟損失超過3 000萬人民幣，海陸空交通亦受影響，有51班航班取消，54班鐵路列車及26條渡輪航線暫停。上海市青浦區有龍捲風報告。普拉桑及其演變而成的溫帶氣旋亦為韓國及日本帶來大暴雨，多處出現嚴重水浸及山泥傾瀉。韓國南部多處地區錄得破紀錄的雨量，其中慶尚南道昌原市在九月二十一日錄得一小時雨量104.9毫米及二十四小時雨量397.7毫米。韓國有超過1 500人需要撤離，超過190間房屋損毀，超過4 100公頃農作物受災。在日本，有16人死亡，47人受傷，超過530間房屋受損，至少有5 200戶停水及6 900戶停電。

熱帶低氣壓蘇力(2415)於九月十六日早上在馬尼拉之東北約530公里的北太平洋西部上形成，向西移動。蘇力於當晚至翌日凌晨**橫過呂宋**，隨後繼續採取偏西路徑橫過南海中部。蘇力於九月十九日凌晨在海南島以南海域增強為熱帶風暴，並達到其最高強度，中心附近

最高持續風速為每小時65公里。蘇力於當日下午在越南中部登陸，最後於九月二十日早上在老撾減弱為低壓區。

根據報章報導，蘇力及西南季候風為菲律賓帶來暴雨，約9 000人受災，2 000人需要撤離。繼九月上旬的摩羯吹襲後，蘇力及其殘餘再為越南、老撾、泰國及緬甸帶來暴雨。越南有至少兩人死亡，一人受傷，超過90間房屋受損。泰國有至少五人死亡，超過8 000公頃農作物受災。緬甸有超過300人死亡，100人受傷，超過80萬人受災。

一個熱帶低氣壓於九月二十二日早上在廈門之東北偏東約180公里的台灣海峽上形成，中心附近最高持續風速估計為每小時55公里，大致向西南靠近福建沿岸。該熱帶低氣壓最後於當晚在福建沿岸海域減弱為低壓區。

熱帶低氣壓西馬侖(2416)於九月二十三日晚上在鹿兒島之東南偏南約330公里的北太平洋西部上形成，於日本以南海域徘徊。九月二十五日早上西馬侖增強為熱帶風暴，並達到其最高強度，中心附近最高持續風速為每小時65公里。西馬侖於九月二十六日下午逐漸減弱，最後於翌日下午在日本以南海域減弱為低壓區。

熱帶低氣壓飛燕(2417)於九月二十六日早上在硫黃島之東南約1 170公里的北太平洋西部上形成，大致向西北或西北偏北移向硫黃島以南海域。翌日下午飛燕增強為熱帶風暴。飛燕於九月二十九日至三十日橫過硫黃島一帶，並逐漸轉向東北偏北移動。十月一日凌晨飛燕增強為強烈熱帶風暴，並於早上達到其最高強度，中心附近最高持續風速估計為每小時110公里。當日飛燕橫過日本本州以東海域，並逐漸轉向東北移動。飛燕最後於十月二日晚上在北海道以東海域演變為溫帶氣旋。

熱帶低氣壓山陀兒(2418)於九月二十六日晚上在沖繩島以南約490公里的北太平洋西部上形成，初時向西南或西南偏南移動。九月二十八日山陀兒在呂宋海峽以東海域徘徊，並逐漸增強。山陀兒於九月二十九日開始加速向西北偏西移動，並由強烈熱帶風暴迅速增強為強颱風。九月三十日凌晨山陀兒進一步增強為超強颱風，隨後橫過呂宋海峽。山陀兒於十月一日凌晨達到其最高強度，中心附近最高持續風速估計為每小時220公里。翌日山陀兒逐漸轉向東北，緩慢移向台灣西南部。山陀兒於十月三日下午在高雄登陸，隨後在台灣南部徘徊並迅速減弱，最後於翌日凌晨減弱為低壓區。

根據報章報道，山陀兒為菲律賓北部帶來暴雨，巴丹群島錄得破紀錄的二十四小時雨量727.8毫米。菲律賓有五人死亡，一人失蹤，12人受傷，超過38萬人受災，超過2 800間房屋受損，經濟損失超過15億菲律賓比索。山陀兒及其殘餘亦為台灣帶來狂風暴雨，其中基隆在十月三日錄得破紀錄的日雨量408毫米。連日狂風暴雨在台灣造成四人死亡，一人失蹤，719人受傷，超過60萬戶停水及43萬戶停電，經濟損失超過1 900萬美元。海陸空交通亦受影響，超過460班航班取消。

熱帶低氣壓百里嘉(2419)於十月六日早上在硫黃島之東南偏南約1 000公里的北太平洋西部上形成。隨後三天百里嘉大致向北或東北偏北移動，橫過硫黃島以東海域。百里嘉於

十月九日晚上增強為熱帶風暴，並達到其最高強度，中心附近最高持續風速估計為每小時65公里。百里嘉最後於十月十一日早上在日本以東的北太平洋西部演變為溫帶氣旋。

熱帶低氣壓潭美(2420)於十月二十一日凌晨在馬尼拉以東約1 370公里的北太平洋西部上形成，向西移向菲律賓以東海域，並逐漸增強。翌日凌晨潭美增強為熱帶風暴，隨後轉向西北偏西或西北移向呂宋。潭美於十月二十四日橫過呂宋，並在下午進入南海中部。隨後兩日潭美採取偏西路徑，橫過南海中部。潭美於十月二十六日早上增強為颱風，並達到其最高強度，中心附近最高持續風速估計為每小時120公里。受南海中部較強的垂直風切變影響，其後潭美逐漸減弱。潭美於翌日早上轉向西南偏南移動，並在中午前後在越南中部登陸。由於引導氣流較弱，潭美隨後在沿岸地區徘徊，最後於十月二十八日早上減弱為低壓區。

根據報章報導，潭美為菲律賓帶來狂風暴雨，引致山洪暴發，造成多人傷亡及重大經濟損失。受潭美及其殘餘影響，海南於十月二十六日至三十一日出現大暴雨，期間琼海市錄得最大累積降雨量1243.1 毫米，暴雨引發水浸及山泥傾瀉，造成十人死亡，超過55萬人受災，經濟損失約2.3億元人民幣。潭美亦為越南帶來暴雨，造成至少三人死亡，一人失蹤，超過290間房屋受損。

熱帶低氣壓康妮(2421)於十月二十四日下午在關島以東約400公里的北太平洋西部上形成。隨後四天康妮大致向西或西北偏西移動，橫過呂宋以東的北太平洋西部，並逐漸增強為強烈熱帶風暴。康妮於十月二十九日轉向西北移向台灣東南部。康妮於十月三十日凌晨迅速增強為超強颱風，並於早上達到其最高強度，中心附近最高持續風速估計為每小時210公里。康妮於十月三十一日下午橫過台灣期間迅速減弱，並於當晚進入台灣海峽。康妮於十一月一日凌晨轉向東北偏北移向福建至浙江沿岸，並減弱為熱帶風暴，最後於當晚在浙江沿岸海域演變為溫帶氣旋。

根據報章報道，康妮及十月下旬的潭美合共在菲律賓造成159人死亡，22人失蹤，132人受傷，超過960萬人受災，超過20萬間房屋受損，超過13萬公頃農作物受損，經濟損失超過184億菲律賓比索。康妮為台灣帶來狂風暴雨，花蓮部分地區錄得一小時雨量達119.5毫米。康妮在台灣造成三人死亡，692人受傷，超過6萬戶停水及97萬戶停電，超過34 000公頃農作物受災，經濟損失超過7 300萬美元。當地航空交通亦受影響，超過500班航班取消。此外，康妮亦為華東沿岸地區帶來暴雨，浙江、福建、江蘇及上海有超過42萬人受災，超過5萬人需要撤離，超過54 000公頃農作物受災，經濟損失約6.5億人民幣。康妮及其演變而成的溫帶氣旋亦為韓國及日本帶來暴雨，韓國濟州及日本九州部分地區分別錄得二十四小時雨量268.5及378毫米。日本有至少一人失蹤，三人受傷。

熱帶低氣壓銀杏(2422)於十一月三日早上在雅蒲島之東南約110公里的北太平洋西部上形成，隨後兩天向西北偏西或西北移向呂宋，並逐步增強為颱風。銀杏於十一月六日逐漸轉向西移動，並於當晚進一步增強為超強颱風。翌日下午銀杏達到其最高強度，中心附近最高持續風速估計為每小時220公里。隨後銀杏掠過呂宋北端，並於十一月八日凌晨稍為減

弱為強颱風。銀杏於十一月九日大致向西橫過南海北部，並再次增強為超強颱風。銀杏於隨後兩天在海南島東南對出海域轉向西南移動，並迅速減弱。最後，銀杏於十一月十二日在越南中部沿岸海域減弱為低壓區。

根據報章報導，銀杏吹襲菲律賓北部期間，共造成一人死亡，一人失蹤，一人受傷，超過38萬人受災，超過28 000間房屋受損，經濟損失超過1.92億菲律賓比索。

熱帶低氣壓萬宜(2424)於十一月九日凌晨在關島以東約1 840公里的北太平洋西部上形成，向西北至西北偏西移動，並於當日增強為熱帶風暴。隨後四天萬宜改為採取西南偏西路徑，橫過關島附近海域。萬宜於十一月十四日至十六日逐漸由偏西轉向西北移動，移向呂宋。萬宜於十一月十六日凌晨增強為超強颱風，並於早上達到其最高強度，中心附近最高持續風速估計為每小時220公里。萬宜於十一月十七日橫過呂宋，進入南海中部，並迅速減弱。翌日萬宜大致向西北偏西橫過南海北部。十一月十九日下午萬宜逐漸轉向西南偏西移動，最後於十一月二十日凌晨在海南島東南對出海域減弱為低壓區。

根據報章報導，萬宜為菲律賓帶來狂風暴雨，造成多地水浸及嚴重破壞，大量樹木倒塌及房屋損毀，多人傷亡。

熱帶低氣壓桃芝(2423)於十一月九日早上在馬尼拉以東約1 270公里的北太平洋西部上形成，隨後向西至西北偏西移向呂宋，當晚增強為熱帶風暴。桃芝於翌日逐步增強為颱風，並於十一月十一日早上在呂宋以東近岸海域達到其最高強度，中心附近最高持續風速估計為每小時130公里。桃芝於當日日間橫過呂宋，逐漸轉向西北移動，並於傍晚進入南海中部。桃芝於隨後兩日移向廣東沿岸，並逐漸減弱為熱帶風暴。桃芝於十一月十四日早上轉向西緩慢移動，橫過香港以南海域。最後，桃芝於十一月十五日早上在上川島以南海域減弱為低壓區。

根據報章報導，桃芝為菲律賓帶來狂風暴雨，導致多地水浸及多人傷亡。

熱帶低氣壓天兔(2425)於十一月十一日早上在雅蒲島之東北約330公里的北太平洋西部上形成，向西北偏西移動，橫過菲律賓以東的北太平洋西部。天兔於十一月十三日凌晨迅速增強為颱風，並於當晚進一步增強為超強颱風及達到其最高強度，中心附近最高持續風速估計為每小時205公里。十一月十四日早上天兔轉向西北移動，並於下午掠過呂宋東北部期間減弱為強颱風。天兔翌日橫過呂宋海峽期間，逐漸轉向東北偏北移向台灣西南部，並迅速減弱為熱帶風暴。天兔於十一月十六日早上在台灣西南近岸海域徘徊，最後於當天下午在該區減弱為低壓區。

根據報章報道，桃芝、天兔及萬宜接二連三吹襲菲律賓，合共造成14人死亡，兩人失蹤，15人受傷，超過430萬人受災，超過78 000間房屋受損，超過41 000公頃農作物受災，經濟損失超過37億菲律賓比索。天兔吹襲台灣期間，屏東大漢山錄得二十四小時雨量472.5毫米。天兔在台灣造成一人受傷，超過1 500戶停電，約18班航班取消。

十二月

熱帶低氣壓帕布(2426)於十二月二十二日晚上在胡志明市以東約750公里的南海南部上形成，向西北或西北偏西移動。十二月二十三日早上帕布達到其最高強度，中心附近最高持續風速估計為每小時55公里。帕布於當晚至翌日早上逐漸轉向西南移動。帕布於十二月二十五日逐漸減弱，最後於傍晚在越南東南海域減弱為低壓區。

根據報章報道，與帕布相關的低壓區為菲律賓西部帶來暴雨，造成三人死亡，超過八萬人受災。

備註：人命傷亡及財物損毀數據是根據報章報導輯錄而成。

Section 2 TROPICAL CYCLONE OVERVIEW FOR 2024

2.1 Review of tropical cyclones in 2024

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

In 2024, a total of 29 tropical cyclones occurred over the WNP and the SCS bounded by the Equator, 45°N, 100°E and 180°, near the long-term (1961-2020) average figure of around 30. During the year, 13 of which attained typhoon intensity or above, slightly less than the long-term average (1961-2020) of about 15, with eight of them reaching super typhoon intensity (maximum 10-minute mean wind speed of 185 km/h or above near the centre).

Figure 2.1 shows the monthly frequencies of the occurrence of tropical cyclones in WNP and SCS in 2024.

During the year, eight tropical cyclones made landfall over China, with one of them crossing the coast of southern China within 300 km of Hong Kong, and three crossing Taiwan. Eight made landfall over the Philippines and five made landfall over Vietnam. With an estimated maximum sustained wind speed of 230 km/h and a minimum sea-level pressure of 915 hPa near its centre (Table 4.1), Super Typhoon Yagi (2411) in September (Figure 2.3) was the most intense tropical cyclone over the WNP and the SCS in 2024. In November, Yinxing (2422), Toraji (2423), Usagi (2425) and Man-yi (2424) co-existed over the WNP and the SCS, the first time in November since 1961 that four tropical cyclones occurred concurrently in the region (Figure 2.4).

2.1.2 Tropical cyclones in Hong Kong's area of responsibility

Amongst the 29 tropical cyclones in 2024, 17 of them occurred inside Hong Kong's area of responsibility (i.e. the area bounded by 10°N, 30°N, 105°E and 125°E), near the long-term annual average (1961-2020) figure of around 16 (Table 2.1). Five of them developed within Hong Kong's area of responsibility. Altogether, 485 tropical cyclone warnings to ships and vessels were issued by the Observatory this year (Table 4.2).

2.1.3 Tropical cyclones over the South China Sea

Fourteen tropical cyclones affected the SCS bounded by 10°N, 25°N, 105°E and 120°E in 2024, slightly more than the long-term annual average (1961-2020) of around 12. Five of them formed over the region.

With an estimated maximum sustained wind of 230 km/h near its centre on 6 September, Super Typhoon Yagi (2411) (Figure 2.3) became the second strongest tropical cyclone in the SCS since the Observatory's records began in 1950, second only to Super Typhoon Rammasun in 2014 and on par with Super Typhoon Saola in 2023.

2.1.4 Tropical cyclones affecting Hong Kong

In 2024, the tropical cyclone season in Hong Kong started on 30 May. Tropical Cyclone Maliksi (2402) formed over the central part of the SCS and moved northwards towards the coast of western Guangdong that evening, necessitating the issuance of the Standby Signal No. 1. The tropical cyclone season ended with the cancellation of all tropical cyclone warning signals on 19 November, with Tropical Cyclone Man-yi (2424) departing from Hong Kong and weakening that night.

Seven tropical cyclones affected Hong Kong during 2024 (Figure 2.2), slightly more than the long-term (1961-2020) average of about six in a year (Table 2.2). They were Tropical Storm Maliksi (2402) in May to June, Severe Tropical Storm Prapiroon (2404) in July, Super Typhoon Yagi (2411) in September, Typhoon Trami (2420) in October, and the three in November, namely Super Typhoon Yinxing (2422), Typhoon Toraji (2423) and Super Typhoon Man-yi (2424). The No. 8 Gale or Storm Signal was issued during the passages of Yagi and Toraji on 5 September and 13 November respectively, the highest tropical cyclone warning signal issued in 2024. Among them, the No. 8 Gale or Storm Signal issued during the passage of Toraji was the latest issuance of No. 8 Signal in a year since 1946. The No. 3 Strong Wind Signal was issued during the passages of Maliksi, Trami and Yinxing. Prapiroon and Man-yi necessitated the issuance of the Standby Signal No. 1 by the Observatory.

Towards the end of the tropical cyclone season, Yinxing, Toraji and Man-yi affected Hong Kong one after another. Tropical cyclone warning signals were issued for these three episodes (Table 4.3), the first time in November since 1946.

2.1.5 Tropical cyclone rainfall

Tropical cyclone rainfall for Hong Kong (total rainfall recorded at the Hong Kong Observatory Headquarters from the time when a tropical cyclone was first centred within 600 km of Hong Kong to 72 hours after it had dissipated within or moved outside 600 km of Hong Kong) in 2024 was 724.9 mm (Table 4.8.1), which accounted for approximately 31.4% of the year's total rainfall of 2309.7 mm and is near the 1961-2020 long-term average of 704.2 mm.

According to the above definition, Super Typhoon Yagi (2411) brought 198.3 mm of rainfall to Hong Kong (Table 4.8.1) and was the wettest tropical cyclone in 2024.

2.2 Monthly overview

A monthly overview of tropical cyclones in 2024 is given in this section. Detailed reports on tropical cyclones affecting Hong Kong, including reports of damage, are presented in Section 3.

JANUARY TO APRIL

No tropical cyclone formed over the WNP and the SCS from January to April 2024.

MAY TO JUNE

Ewiniar (2401) formed as a tropical depression over the WNP about 990 km southeast of Manila on the morning of 24 May and moved northwestwards across the Philippines. Ewiniar turned to move northeastwards gradually and intensified rapidly on 26 May. It intensified into a typhoon and reached its peak intensity with an estimated sustained wind of 140 km/h near its centre that night. Ewiniar moved across the seas south of the Ryukyu Islands and weakened gradually in the following three days. It finally evolved into an extratropical cyclone over the WNP to the south of Japan on the afternoon of 30 May.

According to press reports, Ewiniar brought torrential rain and squalls to the Philippines, causing six deaths and eight injuries. More than 150 000 people were affected and economic loss exceeded PHP 1.04 billion.

Maliksi (2402) formed as a tropical depression over the central part of the SCS about 650 km south-southwest of Hong Kong on the evening of 30 May and moved generally northwards towards the coast of western Guangdong. Maliksi intensified into a tropical storm and attained

its peak intensity with an estimated maximum sustained wind of 65 km/h near its centre the next afternoon. Maliksi made landfall over Yangjiang, Guangdong in the small hours of 1 June. It then moved north-northeastwards into inland Guangdong and weakened gradually. Maliksi finally degenerated into an area of low pressure that evening.

According to press reports, Maliksi brought torrential rain and squalls to Guangzhou, Foshan, Maoming and other places in Guangdong. Some ferry services were suspended in Guangzhou and Shenzhen.

JULY

A tropical depression formed over the southern part of the SCS about 570 km east-southeast of Da Nang on the evening of 13 July, with an estimated maximum sustained wind of 45 km/h near its centre. It generally tracked northwestwards in the following two days and finally weakened into an area of low pressure over the central part of Vietnam on the night of 15 July.

Prapiroon (2404) formed as a tropical depression over the central part of the SCS about 630 km east-southeast of Xisha on the afternoon of 19 July and moved west-northwestwards across the central part of the SCS. It intensified into a tropical storm on the morning of 21 July and turned to move north-northwestwards towards Hainan Island. Before making landfall over Hainan Island, Prapiroon further intensified into a severe tropical storm that night. Prapiroon made landfall over Wanning, Hainan in the small hours of 22 July and weakened slightly into a tropical storm as it moved across Hainan Island. Prapiroon re-intensified into a severe tropical storm as it moved across Beibu Wan. It attained its peak intensity with an estimated maximum sustained wind of 105 km/h near its centre on the evening of 22 July. Prapiroon made landfall over the northern part of Vietnam on the morning of 23 July. It then moved inland and weakened gradually. Prapiroon finally degenerated into an area of low pressure that night.

According to press reports, Prapiroon brought torrential rain and squalls to Hainan Island, resulting in fallen trees in many parts of the region and an interruption to electricity supply to over 220 000 households.

Gaemi (2403) formed as a tropical depression over the WNP about 1 090 km east of Manila on the night of 19 July. It moved northwestwards or west-northwestwards across the seas east of the Philippines and intensified gradually. Gaemi turned to move generally northwards towards the seas east of Taiwan on 22 July and intensified into a typhoon that night. It then turned to move northwestwards towards Taiwan on the night of the next day. On 24 July, Gaemi intensified into a super typhoon and attained its peak intensity with an estimated maximum sustained wind of 195 km/h near its centre. Affected by Taiwan's terrain, Gaemi lingered around the coastal waters east of Taiwan and made an anti-clockwise loop that night. Gaemi weakened into a severe typhoon when it moved across Taiwan in the small hours of 25 July. It made landfall over Putian, Fujian that night and further weakened into a severe tropical storm. In the following two days, Gaemi moved generally northwestwards or west-northwestwards into inland and continued to weaken. It finally degenerated into an area of low pressure over Hubei on the morning of 28 July.

According to press reports, Prapiroon and Gaemi, together with the southwest monsoon, brought days of torrential rain and squalls to the Philippines. 53 people were found dead or missing, and 16 were injured. More than 6.4 million people were affected. More than 9 700 houses were damaged and the economic loss exceeded PHP 10.3 billion in the Philippines. A 24-hour rainfall of 1 217.5 millimetres was recorded in Maolin of Gaoxiong during the passage of Gaemi over Taiwan. Torrential rain and squalls left 12 dead or missing, and more than 900 injuries. Water and electricity supplies to more than 160 000 and 870 000 households were

disrupted respectively. The economic loss exceeded USD 110 million. More than 1.47 million people were affected in Fujian, Zhejiang, Jiangxi and Guangdong with the economic loss exceeding RMB 5.7 billion. In addition, affected by the remnant of Gaemi, Hunan reported a record-breaking 24-hour rainfall of 642.5 millimetres. The torrential rain left 94 dead or missing. More than 1.21 million people were affected and the economic loss exceeded RMB 8.6 billion.

AUGUST TO NOVEMBER

Maria (2405) formed as a tropical depression over the WNP about 1 140 km south of Tokyo in the small hours of 7 August and then moved generally eastwards. It intensified into a tropical storm in the small hours of 8 August, turned to move generally northwards towards the seas east of Honshu, Japan, and further intensified into a severe tropical storm that night. Maria attained its peak intensity with an estimated maximum sustained wind of 110 km/h near its centre in the small hours of 9 August. Maria weakened into a tropical storm on the night of the next day, but intensified into a severe tropical storm again on 11 August and turned to move west-northwestwards or northwestwards. Maria weakened gradually upon crossing Tohoku, Japan the next day. It finally degenerated into an area of low pressure over the seas north of Honshu, Japan on the morning of 13 August.

According to press reports, Maria brought torrential rain and squalls to Tohoku, Japan. A record-breaking 48-hour rainfall of 481.5 millimetres was recorded in Kuji of Iwate Prefecture. At least 2 000 people were evacuated. Water and electricity supplies to more than 200 and 4 000 households were disrupted respectively. Railway and air traffic were also affected, with at least 80 flights cancelled.

Son-Tinh (2406) formed as a tropical depression over the WNP about 1 220 km east-northeast of Iwo Jima on the night of 10 August, and moved east-northeastwards at first. It turned to move generally northwards on the morning of 11 August, and intensified into a tropical storm, attaining its peak intensity with an estimated maximum sustained wind of 65 km/h near its centre that night. It turned to move northwestwards towards the seas east of Honshu, Japan the next day. Son-Tinh weakened gradually on 13 August, and finally degenerated into an area of low pressure over the seas east of Honshu, Japan in the small hours of the next day.

Ampil (2407) formed as a tropical depression over the WNP about 620 km west-southwest of Iwo Jima on the morning of 12 August, and moved northeastwards. It turned to move northwards across the seas south of Honshu, Japan on 14 August and intensified gradually. Ampil intensified into a severe typhoon in the small hours of 16 August, and attained its peak intensity with an estimated maximum sustained wind of 175 km/h near its centre that morning. Ampil then turned to move northeastwards across the seas east of Honshu, Japan. It moved east-northeastwards or northeastwards in the following two days, and weakened rapidly into a severe tropical storm on 18 August. Ampil finally evolved into an extratropical cyclone over the WNP to the east of Japan on the morning of 19 August.

According to press reports, Ampil brought torrential rain and squalls to eastern Honshu, Japan. Four people were injured. Electricity supply to more than 13 000 households was disrupted. Railway and air traffic were affected, with at least 900 flights cancelled.

Wukong (2408) formed as a tropical depression over the WNP about 760 km east of Iwo Jima on the afternoon of 12 August, and moved generally northwards. It intensified into a tropical storm and attained its peak intensity with an estimated maximum sustained wind of 65 km/h near its centre on the morning of 13 August. Wukong weakened into a tropical depression on the

afternoon of the next day, and finally evolved into an extratropical cyclone over the seas east of Honshu, Japan on the night of 15 August.

Jongdari (2409) formed as a tropical depression over the WNP about 270 km southwest of Okinawa on the morning of 18 August. It took a northerly track across the East China Sea and the Yellow Sea, towards the vicinity of the Korean Peninsula in the following two days. Jongdari intensified into a tropical storm on the night of 18 August, and attained its peak intensity with an estimated maximum sustained wind of 75 km/h near its centre in the small hours of 20 August. It weakened gradually that afternoon. Jongdari made landfall over the west coast of the Korean Peninsula on the morning of 21 August, and finally degenerated into an area of low pressure that afternoon.

According to press reports, Jongdari left one person injured in the Republic of Korea during its passage. Ferry services to and from Jeju Island were suspended. More than 100 flights were delayed at Jeju International Airport.

Shanshan (2410) formed as a tropical depression over the WNP about 960 km south-southeast of Iwo Jima on the afternoon of 21 August, and moved west-northwestwards at first. It turned to move generally northwards slowly, and intensified gradually in the following two days. Shanshan started to pick up speed, sweeping across the seas south of Iwo Jima on 24 August. It turned to move northwestwards or west-northwestwards towards the vicinity of the Ryukyu Islands in the small hours of 25 August, and intensified into a typhoon on the afternoon of the next day. Shanshan intensified rapidly into a severe typhoon on the morning of 27 August, and further intensified into a super typhoon, attaining its peak intensity with an estimated maximum sustained wind of 185 km/h near its centre that night. It turned to move northwards towards Kyushu, Japan, and weakened gradually the next day. Shanshan made landfall over Kyushu, Japan on the morning of 29 August, and weakened rapidly into a severe tropical storm that afternoon. It then turned to move generally eastwards across Shikoku and the coastal areas in southern Honshu, Japan in the following two days. It finally degenerated into an area of low pressure over the coastal waters south of Honshu, Japan on the afternoon of 1 September.

According to press reports, Shanshan brought torrential rain and squalls to many places in Japan. A 72-hour rainfall of 821 millimetres was recorded in Misato of Miyazaki Prefecture, Kyushu, and there were reports of a possible tornado in Miyazaki Prefecture. Shanshan caused 8 deaths and 133 injuries in Japan. More than 1 300 houses were damaged. Water and electricity supplies to more than 2 100 and 280 000 households were disrupted respectively. Land and air transport were severely affected, with over 2 000 flights cancelled.

Yagi (2411) formed as a tropical depression over the seas east of the central part of the Philippines about 560 km east-southeast of Manila on the morning of 1 September. It moved northwestwards towards Luzon and intensified into a tropical storm that night. Yagi moved across Luzon the next day and entered the northern part of the SCS on 3 September. Yagi then tracked generally westwards across the northern part of the SCS. Under the favourable conditions of very warm sea water and weak vertical wind shear, Yagi rapidly intensified into a super typhoon from a severe tropical storm on 4 September. Yagi attained its peak intensity with an estimated maximum sustained wind of 230 km/h near its centre in the small hours on 6 September, making it the second strongest tropical cyclone in the SCS since the Observatory's records began in 1950, on par with Super Typhoon Saola in 2023. Yagi turned to move west-northwestwards towards Hainan Island that morning and made landfall near Wenchang, Hainan Island that evening. Yagi continued to maintain super typhoon intensity while moving across Beibu Wan the next day, and made landfall near the northern part of Vietnam in the afternoon.

It then moved into inland areas of the northern part of Vietnam and weakened rapidly. Yagi finally degenerated into an area of low pressure on the night of 8 September.

According to press reports, Yagi left 21 deaths, 26 missing and 22 injuries in the Philippines during its passage. More than 3 million people were affected, over 7 000 houses were damaged and economic loss exceeded PHP 2.6 billion. In Guangdong, Guangxi and Hainan, more than 2.7 million people were affected and over 450 000 people were evacuated. Yagi left 4 deaths and 95 injuries in Hainan. More than 32 000 houses were damaged, the number of fallen trees amounted to over 160 000, and economic loss exceeded RMB 78.6 billion. Yagi and its remnant brought torrential rain to Vietnam, Lao PDR, Thailand and Myanmar, triggering landslides and flooding in many places. In Vietnam, there were at least 323 deaths, 22 missing and 1 978 injuries. More than 3.6 million people were affected, over 280 000 houses were damaged, and economic loss exceeded VND 81 trillion. In Lao PDR, there were at least 7 deaths and more than 180 000 people affected. Economic loss exceeded USD 7.9 million. In Thailand, there were at least 52 deaths and 28 injuries. In Myanmar, there were at least 360 deaths, 100 missing and 48 injuries. More than 1.1 million people were affected and over 140 000 houses were damaged.

Originating from the central North Pacific, Hone moved across the International Date Line with tropical depression intensity and entered the WNP on the morning of 3 September. At the time, the maximum sustained wind near its centre was estimated to be 55 km/h. It tracked north-northwestwards, and weakened gradually. Hone finally degenerated into an area of low pressure over sea on the morning of 4 September.

Leepi (2412) formed as a tropical depression over the WNP about 600 km east of Iwo Jima on the morning of 3 September, and moved generally northwards towards the seas east of Japan. It intensified into a tropical storm, attaining its peak intensity with an estimated maximum sustained wind of 65 km/h near its centre on the morning of 5 September. Leepi then turned to move northeastwards, and finally evolved into an extratropical cyclone over the WNP to the east of Japan in the small hours of 7 September.

Bebinca (2413) formed as a tropical depression over the WNP about 360 km southeast of Guam on the morning of 10 September. It moved generally northwestwards towards the vicinity of the Ryukyu Islands and intensified gradually. Bebinca intensified into a severe tropical storm over the seas south of Iwo Jima on 12 September, but weakened into a tropical storm the next day. It re-intensified on the night of 13 September, and moved across the vicinity of the Ryukyu Islands with severe tropical storm intensity the next day. Bebinca further intensified into a typhoon, and turned to move west-northwestwards towards the vicinity of the Yangtze River Estuary on 15 September. It attained its peak intensity with an estimated maximum sustained wind of 145 km/h near its centre that night. Maintaining its peak intensity, Bebinca made landfall over Pudong of Shanghai on the morning of 16 September. According to the China Meteorological Administration, Bebinca was the strongest tropical cyclone to hit Shanghai since records began in 1949. It then moved inland and weakened rapidly. Bebinca finally degenerated into an area of low pressure in the vicinity of the boundary between Anhui and Henan in the small hours of 18 September.

According to press reports, Bebinca and its remnant brought torrential rain and squalls to Shanghai, Zhejiang, Jiangsu, Anhui, Henan and Shandong. There were four deaths, more than 1.3 million people affected and over one million people evacuated. More than 50 000 hectares of crops were damaged and economic loss exceeded RMB 550 billion. Air and marine transport were affected. A total of 918 flights were cancelled at Shanghai Pudong International Airport and Hongqiao International Airport. 153 ferry routes at coastal ports in Zhejiang were suspended.

Pulasan (2414) formed as a tropical depression over the WNP about 1 360 km south-southeast of Iwo Jima on the night of 15 September. It tracked generally northwestwards towards the vicinity of the Ryukyu Islands and intensified gradually. Pulasan intensified into a tropical storm on the night of 16 September, and attained its peak intensity with an estimated maximum sustained wind of 85 km/h near its centre the next morning. It moved across the vicinity of the Ryukyu Islands and the East China Sea in the following two days. It made landfall over Pudong of Shanghai on the night of 19 September, making it the second tropical cyclone making landfall over Shanghai within four days, following Bebinca. Pulasan then weakened gradually, and turned to move northeastwards or east-northeastwards into the Yellow Sea the next day. It finally evolved into an extratropical cyclone over the coastal waters southwest of the Korean Peninsula on the afternoon of 21 September.

According to press reports, Pulasan brought torrential rain to Zhejiang, Shanghai, Jiangxi, Fujian, Jiangsu and other places. More than 350 000 people were affected and more than 330 000 people were evacuated. In Shanghai, more than 5 400 hectares of crops were damaged, with economic loss exceeding RMB 30 million. Marine, land and air transport in Shanghai were also affected, with 51 flights cancelled, 54 railway trains and 26 ferry routes suspended. There were reports of tornado in Qingpu of Shanghai. Pulasan and the extratropical cyclone it evolved into also brought torrential rain to the Republic of Korea and Japan, triggering severe flooding and landslides in many places. Record-breaking rainfall was recorded in many places in the southern part of the Republic of Korea. Among them, Changwon of South Gyeongsang recorded 1-hour rainfall of 104.9 millimetres and 24-hour rainfall of 397.7 millimetres on 21 September. More than 1 500 people were evacuated in the Republic of Korea. Over 190 houses and more than 4 100 hectares of crops were damaged. In Japan, there were 16 deaths and 47 injuries. More than 530 houses were damaged. Water and electricity supplies to at least 5 200 and 6 900 households were disrupted respectively.

Soulik (2415) formed as a tropical depression over the WNP about 530 km northeast of Manila on the morning of 16 September, and moved westwards. After moving across Luzon from that night to the small hours of the next day, it continued to adopt a westerly track across the central part of the SCS. Soulik intensified into a tropical storm, attaining its peak intensity with an estimated maximum sustained wind of 65 km/h over the seas south of Hainan Island in the small hours of 19 September. It made landfall over the central part of Vietnam that afternoon, and finally degenerated into an area of low pressure in Lao PDR on the morning of 20 September.

According to press reports, Soulik, together with the southwest monsoon, brought torrential rain to the Philippines. Around 9 000 people were affected and 2 000 people were evacuated. After the passage of Yagi in early September, Soulik and its remnant brought heavy rain to Vietnam, Lao PDR, Thailand and Myanmar again. In Vietnam, there were at least two deaths, one injury, and more than 90 houses damaged. In Thailand, there were at least five deaths, and over 8 000 hectares of crops damaged. In Myanmar, there were more than 300 deaths, 100 injuries and over 800 000 people affected.

A tropical depression formed over the Taiwan Strait about 180 km east-northeast of Xiamen on the morning on 22 September, with an estimated maximum sustained wind of 55 km/h near its centre. It generally moved southwestwards edging closer to the coast of Fujian, and finally degenerated into an area of low pressure over the coastal waters of Fujian that night.

Cimaron (2416) formed as a tropical depression over the WNP about 330 km south-southeast of Kagoshima on the night of 23 September, and lingered over the seas south of Japan. Cimaron intensified into a tropical storm, attaining its peak intensity with an estimated maximum sustained wind of 65 km/h on the morning of 25 September. It weakened gradually on the

afternoon of 26 September, and finally degenerated into an area of low pressure over the seas south of Japan the next afternoon.

Jebi (2417) formed as a tropical depression over the WNP about 1 170 km southeast of Iwo Jima on the morning of 26 September, and moved generally northwestwards or north-northwestwards towards the seas south of Iwo Jima. It intensified into a tropical storm on the afternoon of the next day. Jebi moved across the vicinity of Iwo Jima and gradually turned to move north-northeastwards on 29 – 30 September. It intensified into a severe tropical storm in the small hours of 1 October, and attained its peak intensity with an estimated maximum sustained wind of 110 km/h near its centre that morning. Jebi moved across the seas east of Honshu, Japan and gradually turned to track northeastwards that day. It finally evolved into an extratropical cyclone on the night of 2 October over the seas east of Hokkaido.

Krathon (2418) formed as a tropical depression over the WNP about 490 km south of Okinawa on the night of 26 September, and moved southwestwards or south- southwestwards at first. It lingered over the seas east of the Luzon Strait and intensified gradually on 28 September. Krathon began to pick up speed to track west-northwestwards, and rapidly intensified into a severe typhoon from a severe tropical storm on 29 September. It further intensified into a super typhoon in the small hours of 30 September, and then moved across the Luzon Strait. Krathon attained its peak intensity with an estimated maximum sustained wind of 220 km/h near its centre in the small hours of 1 October. It gradually turned to move northeastwards, slowly approaching the southwestern part of Taiwan the next day. Krathon made landfall over Gaoxiong on the afternoon of 3 October, and then weakened rapidly while lingering over the southern part of Taiwan. It finally degenerated into an area of low pressure in the small hours of the next day.

According to press reports, Krathon brought torrential rain to the northern part of the Philippines. A record-breaking 24-hour rainfall of 727.8 millimetres was reported in Batanes Islands. In the Philippines, there were five deaths, one missing, 12 injuries, and over 380 000 people affected. More than 2 800 houses were damaged. Economic loss exceeded PHP 1.5 billion. Krathon and its remnant also brought torrential rain and squalls to Taiwan. A record-breaking daily rainfall of 408 millimetres was reported in Keelung on 3 October. In Taiwan, days of torrential rain and squalls caused four deaths, one missing and 719 injuries. Water and electricity supplies to more than 600 000 and 430 000 households were disrupted respectively. Economic loss exceeded USD 19 million. Marine, land and air traffic were also affected, with over 460 flights cancelled.

Barijat (2419) formed as a tropical depression over the WNP about 1 000 km south-southeast of Iwo Jima on the morning of 6 October. It moved generally northwards or north-northeastwards across the seas east of Iwo Jima in the following three days. Barijat intensified into a tropical storm and attained its peak intensity with an estimated maximum sustained wind of 65 km/h near its centre on the night of 9 October. It finally evolved into an extratropical cyclone over the WNP to the east of Japan on the morning of 11 October.

Trami (2420) formed as a tropical depression over the WNP about 1 370 km east of Manila in the small hours of 21 October, moved westwards towards the seas east of the Philippines, and intensified gradually. It intensified into a tropical storm in the small hours of the next day and then turned to move west-northwestwards or northwestwards towards Luzon. Trami moved across Luzon on 24 October and entered the central part of the SCS that afternoon. Trami adopted a westerly track across the central part of the SCS in the following two days. Trami intensified into a typhoon on the morning of 26 October and attained its peak intensity with an estimated maximum sustained wind of 120 km/h near its centre. Under the influence of the

relatively high vertical wind shear over the central part of the SCS, Trami weakened gradually afterwards. It turned to track south-southwestwards the next morning and made landfall over the central part of Vietnam around noon. With a relatively weak steering flow, Trami then lingered over the coastal areas and finally degenerated into an area of low pressure on the morning of 28 October.

According to press reports, Trami brought torrential rain and squalls to the Philippines, leading to flooding and landslides, resulting in many casualties and significant economic loss. Under the influence of Trami and its remnant, torrential rain occurred in Hainan on 26 – 31 October, with a maximum cumulative rainfall of 1243.1 millimetres recorded in Qionghai during the period. Flooding and landslides triggered by torrential rain led to ten deaths, more than 550 000 people affected and an economic loss of about RMB 230 million. Trami also brought very heavy rain to Vietnam, causing at least three deaths, one missing and more than 290 houses damaged.

Kong-rey (2421) formed as a tropical depression over the WNP about 400 km east of Guam on the afternoon of 24 October. In the following four days, it tracked generally westwards or west-northwestwards across the WNP to the east of Luzon, and intensified gradually into a severe tropical storm. Kong-rey turned to move northwestwards towards the southeastern part of Taiwan on 29 October. It intensified rapidly into a super typhoon in the small hours of 30 October, and attained its peak intensity with an estimated maximum sustained wind of 210 km/h near its centre that morning. Kong-rey weakened rapidly while moving across Taiwan on the afternoon of 31 October and entered the Taiwan Strait that night. It turned to move north-northeastwards towards the coast of Fujian to Zhejiang, and weakened into a tropical storm in the small hours of 1 November. It finally evolved into an extratropical cyclone over the coastal waters of Zhejiang that night.

According to press reports, Kong-rey and Trami in late October caused a total of 159 deaths, 22 missing and 132 injuries in the Philippines. More than 9.6 million people were affected, more than 200 000 houses and over 130 000 hectares of crops were damaged. Economic loss exceeded PHP 18.4 billion. Kong-rey brought torrential rain and squalls to Taiwan, with 1-hour rainfall reaching 119.5 millimetres over parts of Hualien. Kong-rey caused three deaths and 692 injuries in Taiwan. Water and electricity supplies to more than 60 000 and 970 000 households were disrupted respectively. More than 34 000 hectares of crops were damaged. Economic loss exceeded USD 73 million. Air traffic was also affected, with over 500 flights cancelled. Besides, Kong-rey also brought torrential rain to the coastal areas of eastern China. In Zhejiang, Fujian, Jiangsu and Shanghai, more than 420 000 people were affected and more than 50 000 people were evacuated. Over 54 000 hectares of crops were damaged. Economic loss exceeded RMB 650 million. Kong-rey and the extratropical cyclone it evolved into also brought torrential rain to the Republic of Korea and Japan. 24-hour rainfall of 268.5 and 378 millimetres were recorded over parts of Jeju, the Republic of Korea and Kyushu, Japan respectively. In Japan, there were at least one missing and three injuries.

Yinxing (2422) formed as a tropical depression over the WNP about 110 km southeast of Yap on the morning of 3 November. It moved west-northwestwards or northwestwards towards Luzon and intensified progressively into a typhoon in the following two days. It turned gradually to move westwards on 6 November and further intensified into a super typhoon that night. Yinxing attained its peak intensity the next afternoon with an estimated maximum sustained wind of 220 km/h near its centre. It then moved across the northern tip of Luzon and weakened slightly into a severe typhoon in the small hours of 8 November. Yinxing tracked generally westwards across the northern part of the SCS and intensified again into a super typhoon on 9 November. It turned to move southwestwards over the seas southeast of Hainan Island and weakened rapidly

in the following two days. Yinxing finally weakened into an area of low pressure over the coastal waters of central Vietnam on 12 November.

According to press reports, Yinxing caused one death, one missing and one injury during its passage over the northern part of the Philippines. More than 380 000 people were affected, over 28 000 houses were damaged and economic loss exceeded PHP 192 million.

Man-yi (2424) formed as a tropical depression over the WNP about 1 840 km east of Guam in the small hours of 9 November, moved northwestwards to west-northwestwards, and intensified into a tropical storm that day. It turned to adopt a west-southwesterly track across the seas near Guam in the following four days. It turned gradually from moving westwards to northwestwards towards Luzon on 14 – 16 November. Man-yi intensified into a super typhoon in the small hours of 16 November and attained its peak intensity with an estimated maximum sustained wind of 220 km/h near its centre that morning. It moved across Luzon on 17 November, entered the central part of the SCS, and weakened rapidly. It then moved generally west-northwestwards across the northern part of the SCS the next day. Man-yi gradually turned to track west-southwestwards on the afternoon of 19 November and finally weakened into an area of low pressure over the seas southeast of Hainan Island in the small hours of 20 November.

According to press reports, Man-yi brought heavy rain and squalls to the Philippines, resulting in flooding and severe damage in many places. It caused many fallen trees, damaged houses and many casualties.

Toraji (2423) formed as a tropical depression over the WNP about 1 270 km east of Manila on the morning of 9 November. It then moved west to west-northwestwards towards Luzon and intensified into a tropical storm that night. Toraji intensified progressively into a typhoon the next day and attained its peak intensity over the coastal waters east of Luzon with an estimated maximum sustained wind of 130 km/h near its centre on the morning of 11 November. Toraji moved across Luzon during the day that day and gradually turned to move northwestwards and entered the central part of the SCS that evening. Toraji moved towards the coast of Guangdong and weakened gradually into a tropical storm in the following two days. It turned to move westwards slowly across the seas south of Hong Kong on the morning of 14 November. Toraji finally degenerated into an area of low pressure over the seas south of Shangchuan Dao on the morning of 15 November.

According to press reports, Toraji brought heavy rain and squalls to the Philippines, leading to flooding in many places and many casualties.

Usagi (2425) formed as a tropical depression over the WNP about 330 km northeast of Yap on the morning of 11 November, and moved west-northwestwards across the WNP to the east of the Philippines. Usagi intensified rapidly into a typhoon in the small hours of 13 November. It further intensified into a super typhoon, attaining its peak intensity with an estimated maximum sustained wind of 205 km/h near its centre that night. Usagi turned to move northwestwards on the morning of 14 November, and weakened into a severe typhoon upon crossing the northeastern part of Luzon that afternoon. As Usagi moved across the Luzon Strait the next day, it gradually turned to move north-northeastwards towards the southwestern part of Taiwan and weakened rapidly into a tropical storm. Usagi lingered off the southwestern coast of Taiwan on the morning of 16 November and finally degenerated into an area of low pressure in the region that afternoon.

According to press reports, Toraji, Usagi and Man-yi hit the Philippines successively, causing a total of 14 deaths, two missing, 15 injuries and more than 4.3 million people affected. More

than 78 000 houses and over 41 000 hectares of crops were damaged. Economic loss exceeded PHP 3.7 billion. During the passage of Usagi over Taiwan, a 24-hour rainfall of 472.5 millimetres was recorded in Dahan Shan of Pingtung. Usagi caused one injury in Taiwan. Electricity supply to more than 1 500 households was disrupted. Around 18 flights were cancelled.

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Pabuk (2426) formed as a tropical depression over the southern part of the SCS about 750 km east of Ho Chi Minh City on the night of 22 December, and moved northwestwards or west-northwestwards. On the morning of 23 December, Pabuk attained its peak intensity with an estimated maximum sustained wind of 55 km/h near its centre. It gradually turned to move southwestwards that night and the next morning. Pabuk weakened gradually on 25 December, and finally degenerated into an area of low pressure over the seas southeast of Vietnam that evening.

According to press reports, the area of low pressure associated with Pabuk brought torrential rain to the western part of the Philippines, causing three deaths and more than 80 000 people affected.

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

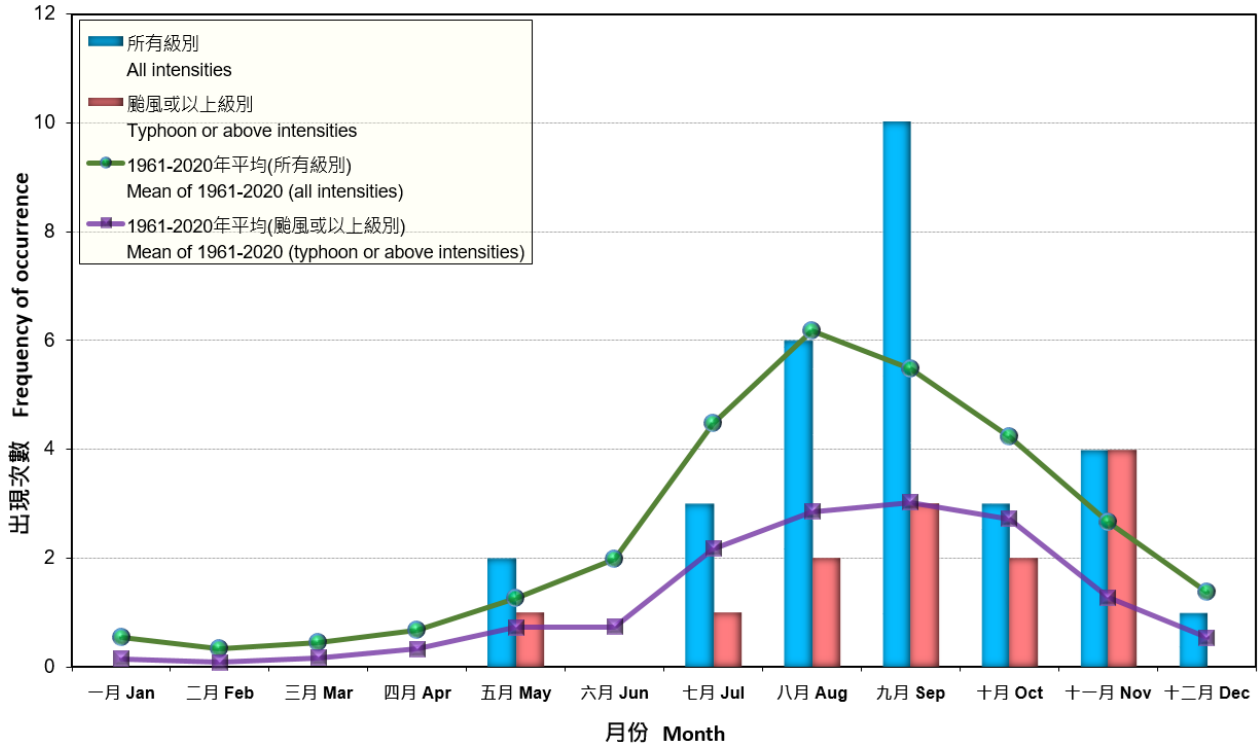

圖 2.1　二零二四年在北太平洋西部及南海區域的熱帶氣旋出現次數之每月分佈 (以熱帶氣旋在該月初次出現為準，假如一熱帶氣旋在九月形成並在十月首次增強為颱風或以上級別，它在「所有級別」及「颱風或以上級別」的統計數字將分別計算在九月及十月份內)。

Figure 2.1　Monthly frequencies of the occurrence of tropical cyclones in the WNP and the SCS in 2024 (based on the first occurrence of the tropical cyclone in the month; for example if a tropical cyclone forms in September and first intensifies into typhoon or above intensities in October, its related statistics for “all intensities” and “typhoon or above intensities” will be counted in September and October respectively).

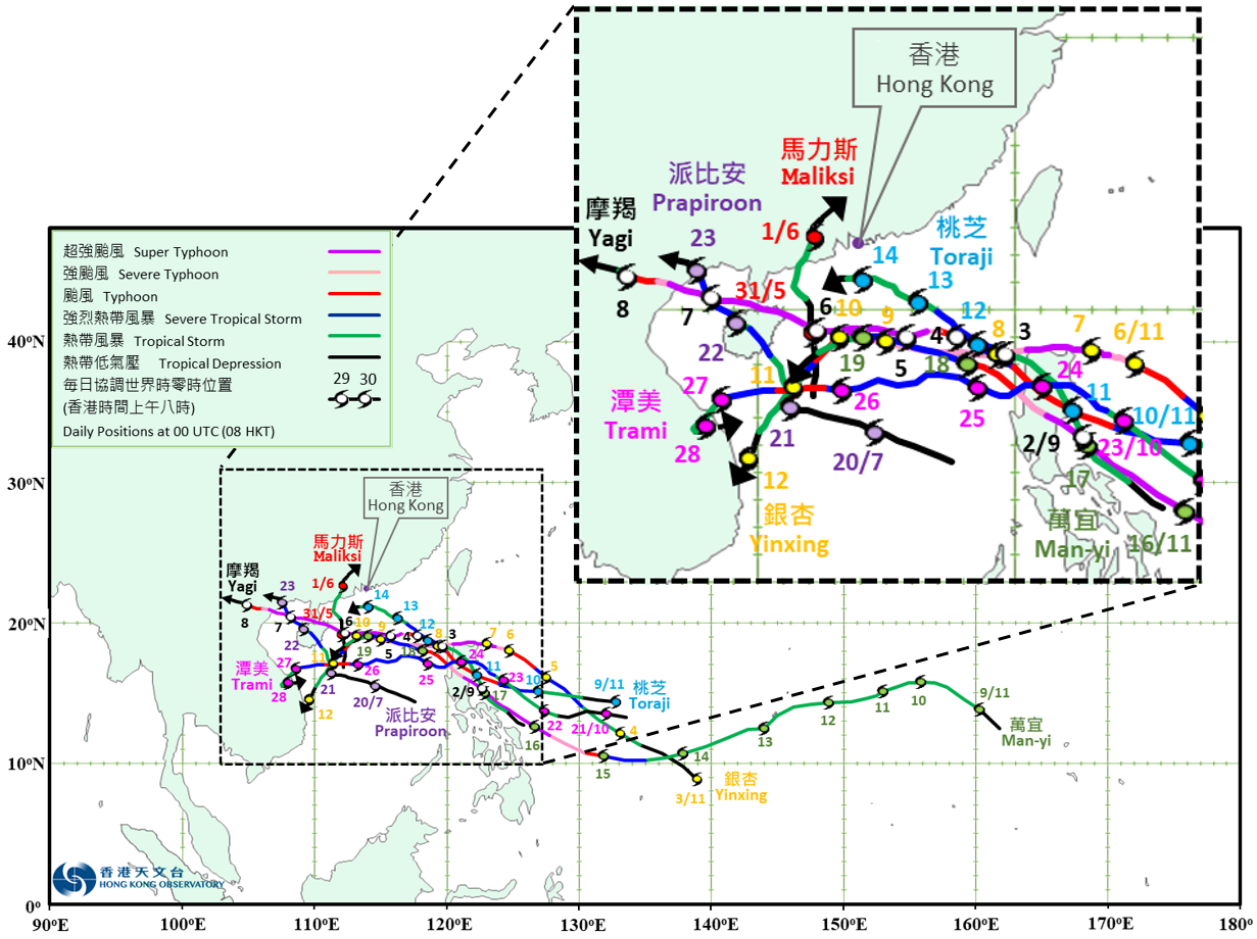

圖 2.2　　二零二四年七個影響香港的熱帶氣旋的路徑圖。

Figure 2.2　Tracks of the seven tropical cyclones affecting Hong Kong in 2024.

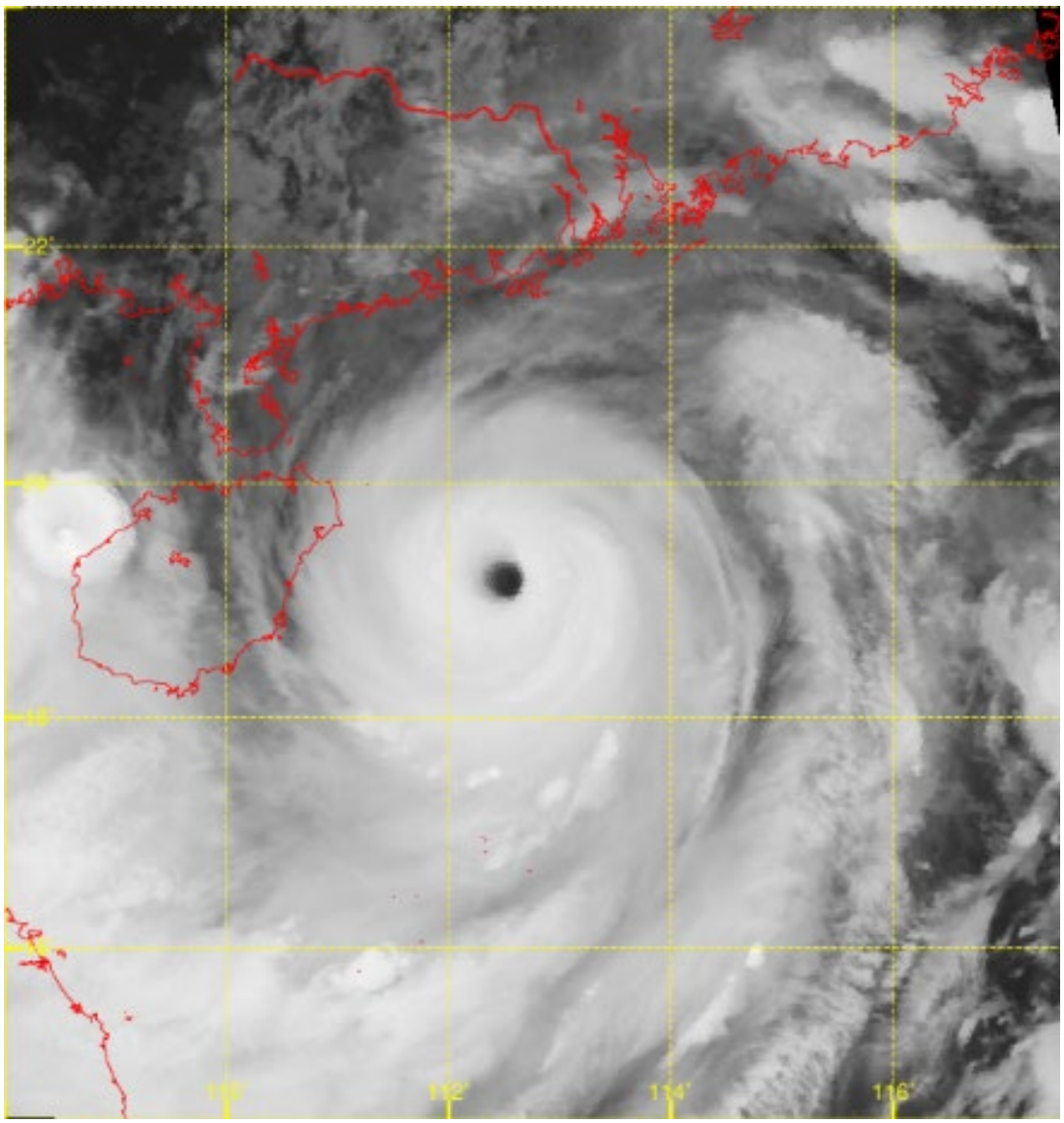

圖2.3　二零二四年九月六日上午5時左右超強颱風摩羯(2411)的紅外線衛星圖片，當時摩羯達到其最高強度，中心附近最高持續風速估計為每小時230公里，而最低中心氣壓為915百帕斯卡。

Figure 2.3　Infra-red satellite imagery of Super Typhoon Yagi (2411) at around 5 a.m. on 6 September 2024, when Yagi was at its peak intensity with an estimated maximum sustained wind of 230 km/h near its centre and a minimum sea-level pressure of 915 hPa.

〔此衛星圖像接收自日本氣象廳的向日葵9號衛星。〕

[The satellite imagery was originally captured by Himawari-9 Satellite (H-9) of Japan Meteorological Agency (JMA).]

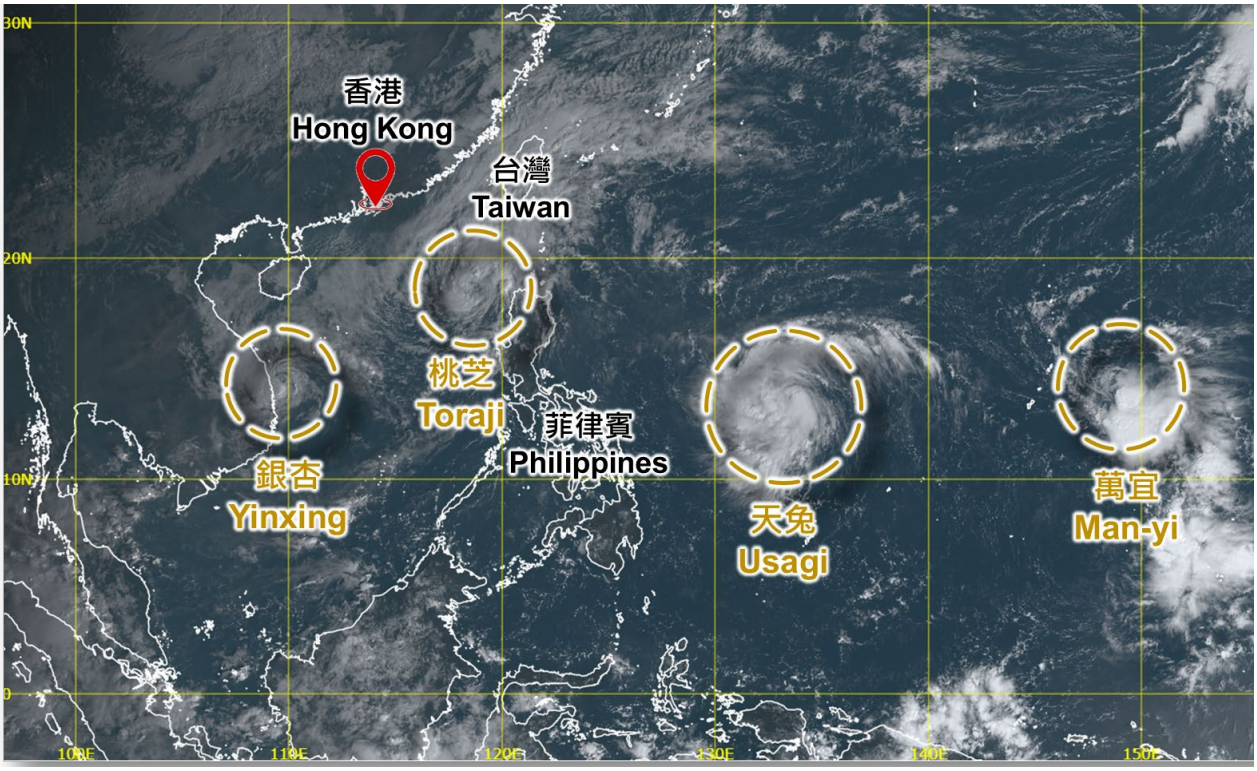

圖2.4　二零二四年十一月十二日上午8時左右銀杏(2422)、桃芝(2423)、天兔(2425)及萬宜(2424)的真彩衛星圖片，是北太平洋西部及南海區域自一九六一年以來首次在十一月同時出現四個熱帶氣旋。

Figure 2.4　True colour satellite imagery of Yinxing (2422), Toraji (2423), Usagi (2425) and Man-yi (2424) at around 8 a.m. on 12 November 2024, the first time in November where four tropical cyclones occurred concurrently over the WNP and the SCS since 1961.

〔此衛星圖像接收自日本氣象廳的向日葵9號衛星。〕

[The satellite imagery was originally captured by Himawari-9 Satellite (H-9) of Japan Meteorological Agency (JMA).]

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為準)

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

月份 Month / 年份 Year	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	共 Total
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
2006					1	1	3	3	4	1	2	1	16
2007							1	4	3	1	3		12
2008				1	2	1	2	3	5	1	2		17
2009					2	2	3	2	3	4	1		17
2010							3	4	2	2			11
2011					2	3	1	2	2	2			12
2012				1		3	2	3	1	2		2	14
2013						2	3	4	4	3	3		19
2014	1					1	2		3		1	2	10
2015	1			1	1	1	2	2	2	2		1	13
2016					1		3	1	4	3	1	2	15
2017	1			1		1	6	3	4	2	3	1	22
2018	1					2	4	4	2	1	2	1	17
2019							3	3	3	1	3	2	15
2020					1	1	2	4	1	4	4	1	18
2021		1		1		2	4	2	3	3		1	17
2022				1		1		3	3	4		1	13
2023				1	1		2	2	2	2			10
2024					2		3		5	2	4	1	17
平均 Average (1961-2020)	0.2	0.0	0.1	0.2	0.8	1.4	2.7	3.1	2.7	2.1	1.7	0.7	15.6

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

月份 Month[#] / 年份 Year	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	共 Total
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
2006					1	1		3	1	1			7
2007								1	1				2
2008				1		1		2	1	1			6
2009						2	2	1	3				8
2010							2	1	1	1			5
2011						2	1		1	1			5
2012						2	1	2					5
2013						2	1	2	1		1		7
2014						1	1		2				4
2015						1	1			1			3
2016					1		2	1	2	3			9
2017						1	1	2	2	1			7
2018						1	1	1	2	1			6
2019							2	2	1				5
2020						1	1	1		2			5
2021						1	3	1		2		1	8
2022						1		3		2			6
2023							2	1	1	1			5
2024					1		1		1	1	3		7
平均 Average (1961-2020)	0.0	0.0	0.0	0.1	0.2	0.8	1.5	1.4	1.5	0.9	0.2	0.0	6.0

[#] 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.

第三節　二零二四年影響香港的熱帶氣旋
Section 3　TROPICAL CYCLONES AFFECTING HONG KONG IN 2024

3.1 熱帶風暴馬力斯(2402)：二零二四年五月三十日至六月一日

馬力斯是二零二四年首個影響香港的熱帶氣旋。馬力斯吹襲香港期間，天文台需要發出三號強風信號。

熱帶低氣壓馬力斯於五月三十日傍晚在香港之西南偏南約 650 公里的南海中部上形成，大致向北移動，移向廣東西部沿岸。翌日下午馬力斯增強為熱帶風暴並達到其最高強度，中心附近最高持續風速估計為每小時 65 公里。馬力斯於六月一日凌晨在廣東陽江市登陸，隨後向東北偏北移入廣東內陸，並逐漸減弱，最後於當日傍晚減弱為低壓區。

根據報章報導，馬力斯為廣東廣州、佛山、茂名等地帶來狂風暴雨，廣州及深圳部分客船停航。

天文台在五月三十日下午 5 時 40 分發出一號戒備信號，當時馬力斯集結在香港之西南偏南約 650 公里。當晚及翌日本港吹和緩至清勁東至東南風，高地間中吹強風。隨著馬力斯繼續靠近廣東西部沿岸，天文台在五月三十一日下午 4 時 40 分改發三號強風信號，當時馬力斯位於香港之西南約 330 公里。翌日本港風力明顯增強，普遍吹強風程度的南至西南風，高地間中吹烈風。馬力斯於六月一日下午 2 時左右最接近香港，在本港西北偏西約 200 公里掠過。隨後馬力斯遠離香港並減弱，天文台在六月一日下午 4 時 40 分改發一號戒備信號。當日傍晚馬力斯在廣東內陸減弱為低壓區，天文台於六月一日下午 5 時 40 分取消所有熱帶氣旋警告信號。但受馬力斯殘餘相關的西南氣流影響，本港部分地區仍吹強風，天文台隨即發出強烈季候風信號，直至翌日上午 6 時正取消。

在馬力斯的影響下，尖鼻咀錄得最高潮位(海圖基準面以上)2.41 米，而大埔滘則錄得最大風暴潮(天文潮高度以上)0.51 米。天文台總部於五月三十日下午 5 時 40 分錄得最低瞬時海平面氣壓 1005.1 百帕斯卡。

五月三十日本港大致多雲及有幾陣驟雨。隨著馬力斯靠近廣東西部沿岸，翌日稍後本港天氣逐漸轉壞。馬力斯的外圍雨帶於五月三十一日至六月一日期間為本港帶來狂風大驟雨，本港普遍錄得超過 40 毫米雨量，而新界部分地區的雨量更超過 100 毫米。

馬力斯吹襲香港期間，有一宗山泥傾瀉報告。馬鞍山有大樹倒塌，擊中一名女途人，需送院治理。紅棉路支路亦有斷枝阻塞往中環的唯一行車線。

3.1 Tropical Storm Maliksi (2402): 30 May to 1 June 2024

Maliksi was the first tropical cyclone affecting Hong Kong in 2024. The Observatory issued the No. 3 Strong Wind Signal during the passage of Maliksi.

Maliksi formed as a tropical depression over the central part of the SCS about 650 km south-southwest of Hong Kong on the evening of 30 May and moved generally northwards towards the coast of western Guangdong. Maliksi intensified into a tropical storm and attained its peak intensity with an estimated maximum sustained wind of 65 km/h near its centre the next afternoon. Maliksi made landfall over Yangjiang, Guangdong in the small hours of 1 June. It then moved north-northeastwards into inland Guangdong and weakened gradually. Maliksi finally degenerated into an area of low pressure that evening.

According to press reports, Maliksi brought torrential rain and squalls to Guangzhou, Foshan, Maoming and other places in Guangdong. Some ferry services were suspended in Guangzhou and Shenzhen.

The Standby Signal No. 1 was issued at 5:40 p.m. on 30 May, when Maliksi was about 650 km south-southwest of Hong Kong. Local winds were moderate to fresh east to southeasterlies and occasionally strong on high ground that night and the next day. As Maliksi continued to edge closer to the coast of western Guangdong, the No. 3 Strong Wind Signal was issued at 4:40 p.m. on 31 May when Maliksi was about 330 km southwest of Hong Kong. Local winds strengthened significantly the next day, with strong south to southwesterlies generally prevailing over the territory and occasionally reaching gale force on high ground. Maliksi came closest to Hong Kong at around 2 p.m. on 1 June, skirting past about 200 km west-northwest of the territory. With Maliksi weakening and departing from Hong Kong afterwards, the No. 3 Strong Wind Signal was replaced by the Standby Signal No. 1 at 4:40 p.m. on 1 June. All tropical cyclone warning signals were cancelled at 5:40 p.m. on 1 June as Maliksi degenerated over inland Guangdong that evening. However, under the influence of the southwesterly airstream associated with the remnant of Maliksi, strong winds were still affecting parts of the territory. The Strong Monsoon Signal was issued thereafter and lasted till 6:00 a.m. the next day.

Under the influence of Maliksi, a maximum sea level of 2.41 m (above chart datum) was recorded at Tsim Bei Tsui and a maximum storm surge of 0.51 m (above astronomical tide) was recorded at Tai Po Kau. At the Observatory Headquarters, the lowest instantaneous mean sea-level pressure of 1005.1 hPa was recorded at 5:40 p.m. on 30 May.

The weather was mainly cloudy with a few showers on 30 May. With Maliksi edging closer to the coast of western Guangdong, the weather in Hong Kong deteriorated gradually later the next day. The outer rainbands of Maliksi brought heavy squally showers to Hong Kong on 31 May – 1 June. More than 40 millimetres of rainfall were generally recorded over the territory and rainfall even exceeded 100 millimetres over parts of the New Territories.

During the passage of Maliksi, there was one report of landslide in Hong Kong. A female pedestrian was hit by a fallen tree in Ma On Shan and was sent to hospital for treatment. A broken branch blocked the only lane of Cotton Tree Drive slip road towards Central.

表 3.1.1　在馬力斯影響下，本港各站在熱帶氣旋警告信號生效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 when the tropical cyclone warning signals for Maliksi were in force

站 (參閱圖 1.1) Station (See Fig. 1.1)		最高陣風 Maximum Gust					最高每小時平均風速 Maximum Hourly Mean 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
黃麻角(赤柱)	Bluff Head (Stanley)	西南偏南	SSW	62	1/6	04:30	南	S	36	1/6	05:00
		西南偏南	SSW	62	1/6	04:31					
中環碼頭	Central Pier	西北偏西	WNW	69	1/6	15:13	西北偏西	WNW	26	1/6	16:00
長洲	Cheung Chau	南	S	64	1/6	10:19	南	S	44	1/6	11:00
長洲泳灘	Cheung Chau Beach	西南	SW	54	1/6	17:04	東北偏東	ENE	32	30/5	21:00
青洲	Green Island	西南	SW	70	1/6	10:36	西南偏南	SSW	48	1/6	11:00
香港國際機場	Hong Kong International Airport	南	S	61	1/6	09:43	西南	SW	40	1/6	17:00
啟德	Kai Tak	西	W	54	1/6	15:30	東	E	24	31/5	03:00
		西南偏西	WSW	54	1/6	16:34					
京士柏	King's Park	西南偏西	WSW	53	1/6	14:40	西南	SW	21	1/6	15:00
南丫島	Lamma Island	東南	SE	53	1/6	04:02	東南偏東	ESE	24	30/5	20:00
							東南	SE	24	1/6	04:00
流浮山	Lau Fau Shan	西南	SW	71	1/6	16:38	西南偏南	SSW	40	1/6	16:00
昂坪	Ngong Ping	西南	SW	103	1/6	16:10	西南	SW	78	1/6	17:00
		西南	SW	103	1/6	16:29					
北角	North Point	西南偏西	WSW	50	1/6	16:44	西南偏西	WSW	25	1/6	17:00
坪洲	Peng Chau	西南偏西	WSW	48	1/6	17:06	東	E	35	30/5	21:00
平洲	Ping Chau	西南偏南	SSW	43	1/6	05:41	東南	SE	9	1/6	06:00
							東南	SE	9	1/6	09:00
西貢	Sai Kung	南	S	66	1/6	11:02	南	S	30	1/6	05:00
沙洲	Sha Chau	西南偏南	SSW	69	1/6	10:50	南	S	46	1/6	11:00
沙螺灣	Sha Lo Wan	西南	SW	71	1/6	15:51	西南	SW	28	1/6	15:00
沙田	Sha Tin	西南	SW	60	1/6	15:38	西南	SW	27	1/6	16:00
石崗	Shek Kong	西南偏南	SSW	45	1/6	10:41	東北偏北	NNE	19	31/5	02:00
九龍天星碼頭	Star Ferry (Kowloon)	西	W	75	1/6	17:15	西	W	26	1/6	17:00
打鼓嶺	Ta Kwu Ling	西南偏南	SSW	43	1/6	13:14	西南偏南	SSW	17	1/6	14:00
大美督	Tai Mei Tuk	西	W	62	1/6	16:32	西南偏西	WSW	35	1/6	17:00
大帽山	Tai Mo Shan	西南	SW	122	1/6	11:17	西南偏南	SSW	74	1/6	17:00
塔門東	Tap Mun East	東南偏東	ESE	64	31/5	13:38	東南偏東	ESE	44	31/5	14:00
大老山	Tate's Cairn	西南偏南	SSW	77	1/6	17:30	南	S	44	1/6	17:00
將軍澳	Tseung Kwan O	西南偏南	SSW	48	1/6	11:00	西南偏南	SSW	15	1/6	13:00
青衣島蜆殼油庫	Tsing Yi Shell Oil Depot	東南	SE	52	1/6	06:15	東南	SE	28	1/6	07:00
							東南	SE	28	1/6	08:00
屯門政府合署	Tuen Mun Government Offices	東南偏南	SSE	55	1/6	09:58	東南偏南	SSE	24	1/6	10:00
橫瀾島	Waglan Island	東南偏東	ESE	66	31/5	16:02	西南	SW	48	1/6	17:00
		東南	SE	66	31/5	16:03					
濕地公園	Wetland Park	西南偏南	SSW	37	1/6	14:44	南	S	12	1/6	16:00
		南	S	37	1/6	15:35					
黃竹坑	Wong Chuk Hang	西南偏西	WSW	42	1/6	17:17	東	E	15	30/5	21:00

大埔滘 - 沒有資料　Tai Po Kau - data not available

表 3.1.2　在馬力斯影響下，熱帶氣旋警告系統的八個參考測風站在熱帶氣旋警告信號生效時錄得持續風力達到強風程度的時段

Table 3.1.2　Periods during which sustained strong winds were attained at the eight reference anemometers in the tropical cyclone warning system when tropical cyclone warning signals for Maliksi were in force

站 (參閱圖 1.1) Station (See Fig. 1.1)		最初達到強風*時間 Start time when strong wind speed* was attained		最後達到強風*時間 End time when strong wind speed* was attained	
		日期/月份 Date/Month	時間 Time	日期/月份 Date/Month	時間 Time
長洲	Cheung Chau	31/5	06:26	1/6	16:00
香港國際機場	Hong Kong International Airport	1/6	09:21	1/6	17:37
流浮山	Lau Fau Shan	1/6	15:06	1/6	15:34

啟德、西貢、沙田、打鼓嶺及青衣島蜆殼油庫的持續風力未達到強風程度。

The sustained wind speed did not attain strong force at Kai Tak, Sai Kung, Sha Tin, Ta Kwu Ling and Tsing Yi Shell Oil Depot.

* 十分鐘平均風速達每小時 41 - 62 公里

* 10-minute mean wind speed of 41 - 62 km/h

註:　本表列出持續風力達到強風程度的起始及終結時間。期間風力可能高於或低於指定的風力。

Note:　The table gives the start and end time of sustained strong winds. Winds might fluctuate above or below the specified wind speeds in between the times indicated.

表 3.1.3　馬力斯影響香港期間，香港天文台總部及其他各站所錄得的日雨量
Table 3.1.3　Daily rainfall amounts recorded at the Hong Kong Observatory Headquarters and other stations during the passage of Maliksi

站 (參閱圖 3.1.2) Station (See Fig. 3.1.2)			五月三十日 30 May	五月三十一日 31 May	六月一日 1 Jun	總雨量(毫米) Total rainfall (mm)
香港天文台 Hong Kong Observatory (HKO)			3.7	13.4	54.2	71.3
香港國際機場 Hong Kong International Airport (HKA)			2.3	9.1	47.1	58.5
長洲 Cheung Chau (CCH)			2.0	24.0	63.0	89.0
H23	香港仔	Aberdeen	0.5	15.5	28.5	44.5
N05	粉嶺	Fanling	2.5	20.0	55.5	78.0
N13	糧船灣	High Island	2.5	11.5	46.0	60.0
K04	佐敦谷	Jordan Valley	7.5	7.0	43.0	57.5
N06	葵涌	Kwai Chung	1.5	23.0	85.5	110.0
H12	半山區	Mid Levels	2.5	30.5	70.0	103.0
N09	沙田	Sha Tin	5.0	12.0	71.5	88.5
H19	筲箕灣	Shau Kei Wan	3.5	9.0	69.0	81.5
SEK	石崗	Shek Kong	0.0	49.5	39.5	89.0
K06	蘇屋邨	So Uk Estate	1.5	15.5	73.0	90.0
R31	大美督	Tai Mei Tuk	3.0	7.0	51.0	61.0
R21	踏石角	Tap Shek Kok	2.5	13.0	34.5	50.0
N17	東涌	Tung Chung	4.0	16.0	56.5	76.5
TMR	屯門水庫	Tuen Mun Reservoir	0.1	22.7	49.9	72.7

表 3.1.4　馬力斯影響香港期間，香港各潮汐站所錄得的最高潮位及最大風暴潮
Table 3.1.4　Times and heights of the maximum sea level and the maximum storm surge recorded at tide stations in Hong Kong during the passage of Maliksi

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
鰂魚涌	Quarry Bay	2.08	31/5	15:31	0.30	30/5	21:52
石壁	Shek Pik	2.13	31/5	13:52	0.28	1/6	04:13
大廟灣	Tai Miu Wan	2.01	31/5	15:25	0.27	30/5	22:14
大埔滘	Tai Po Kau	2.14	31/5	11:27	0.51	31/5	02:52
尖鼻咀	Tsim Bei Tsui	2.41	31/5	15:35	0.34	1/6	05:33
橫瀾島	Waglan Island	2.02	31/5	13:32	0.17	30/5	20:57

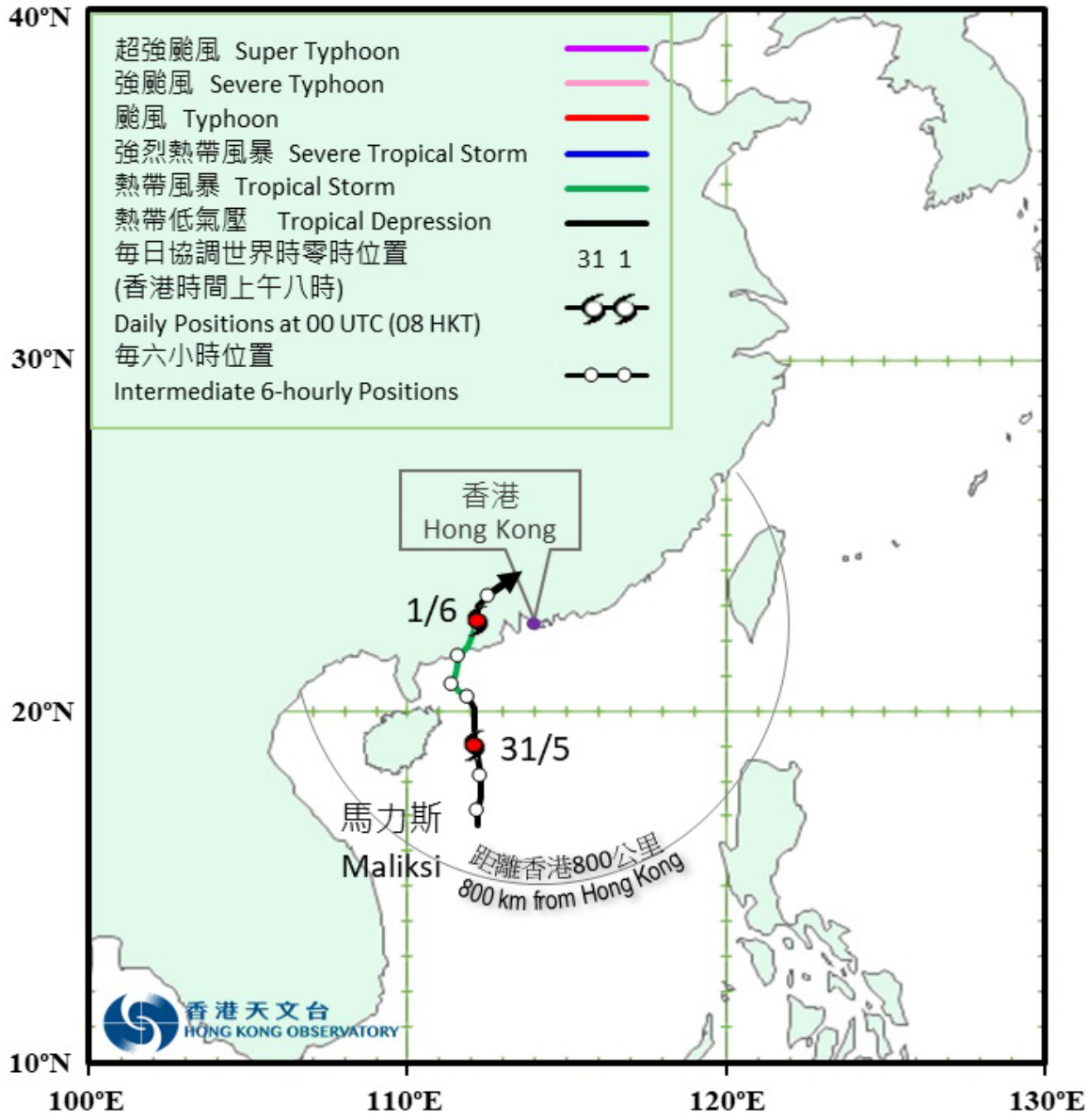

圖 3.1.1 二零二四年五月三十日至六月一日馬力斯(2402)的路徑圖。

Figure 3.1.1 Track of Maliksi (2402): 30 May – 1 June 2024.

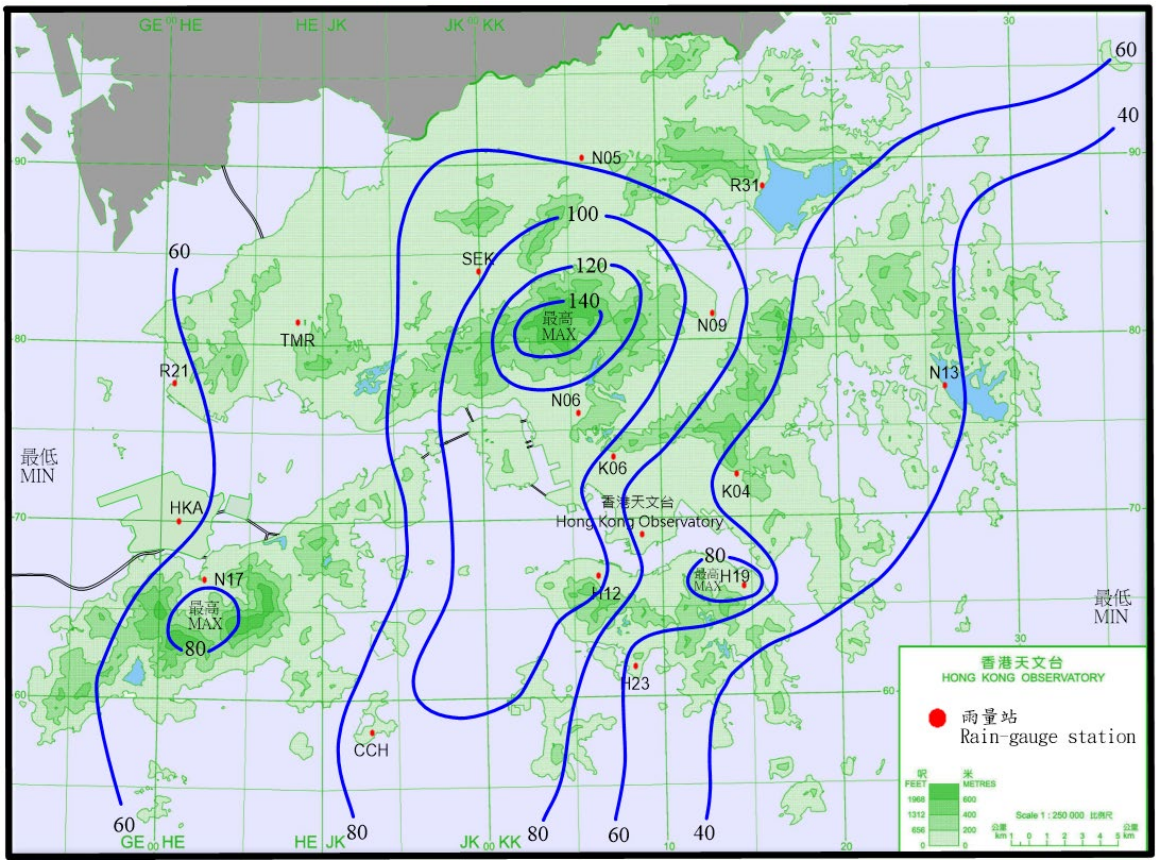

圖 3.1.2　　二零二四年五月三十日至六月一日的雨量分佈(等雨量線單位為毫米)。

Figure 3.1.2　Rainfall distribution on 30 May – 1 June 2024 (isohyets are in millimetres).

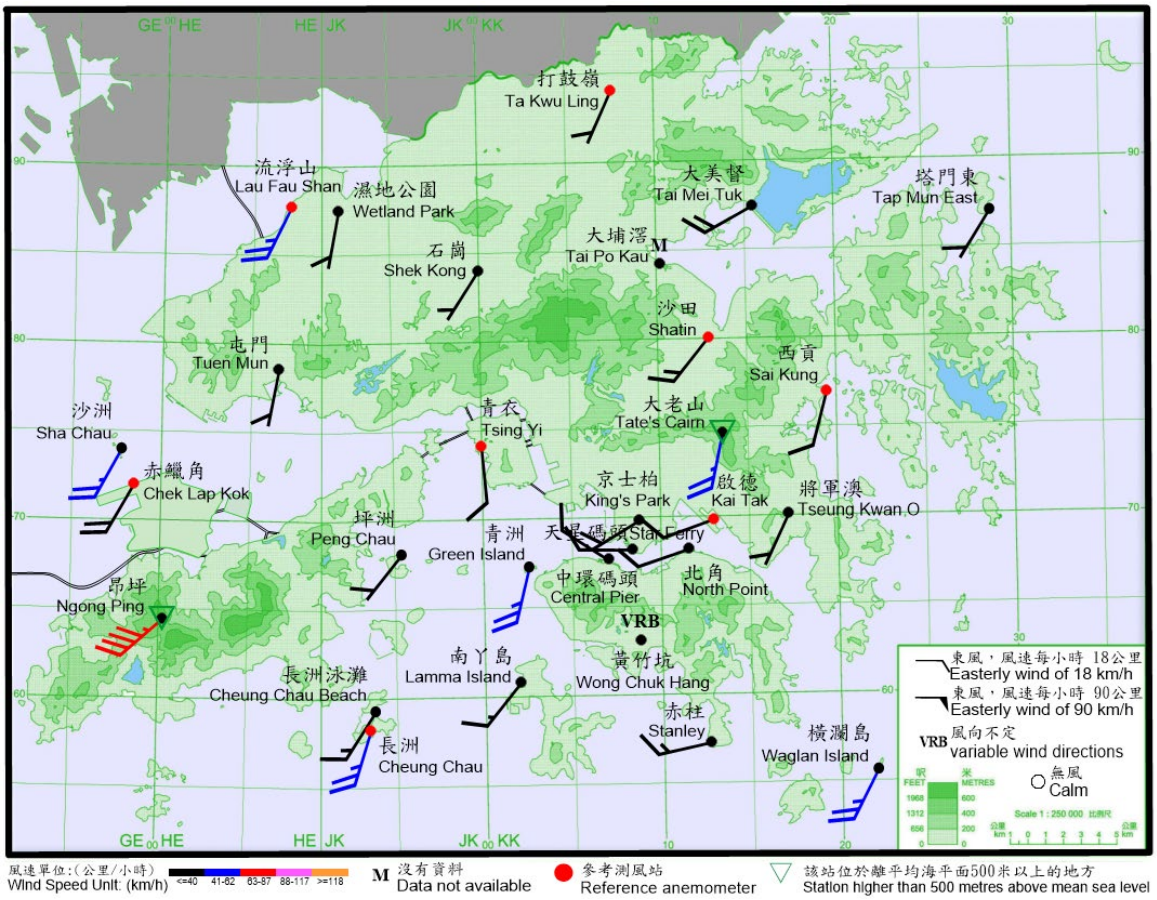

圖 3.1.3　二零二四年六月一日下午 3 時 30 分香港各站錄得的十分鐘平均風向和風速。當時流浮山、沙洲、長洲、青洲、橫瀾島及大老山的風力達到強風程度，而昂坪的風力達到烈風程度。

Figure 3.1.3　10-minute mean wind direction and speed recorded at various stations in Hong Kong at 3:30 p.m. on 1 June 2024. Winds at Lau Fau Shan, Sha Chau, Cheung Chau, Green Island, Waglan Island and Tate's Cairn reached strong force, while winds at Ngong Ping reached gale force at that time.

註：　黃竹坑當時錄得的十分鐘平均風速為每小時 6 公里。

Note:　The 10-minute mean wind speeds recorded at the time at Wong Chuk Hang was 6 km/h.

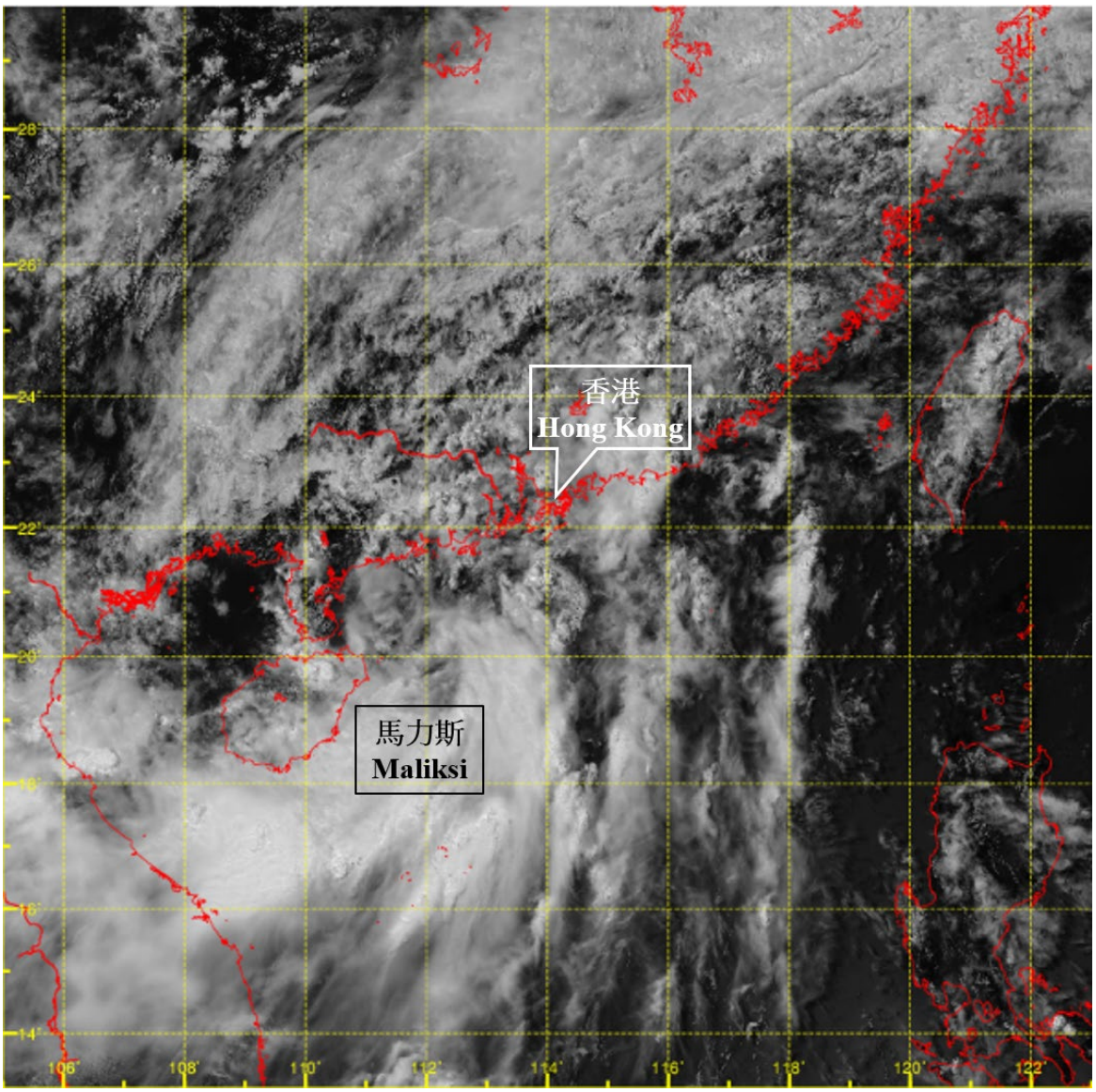

圖 3.1.4　二零二四年五月三十一日下午2時左右的可見光衛星圖片，當時馬力斯達到其最高強度，中心附近最高持續風速估計為每小時65公里。

Figure 3.1.4　Visible satellite imagery at around 2 p.m. on 31 May 2024 when Maliksi was at its peak intensity with an estimated maximum sustained wind of 65 km/h near its centre.

〔此衛星圖像接收自日本氣象廳的向日葵9號衛星。〕

[The satellite imagery was originally captured by Himawari-9 Satellite (H-9) of Japan Meteorological Agency (JMA).]

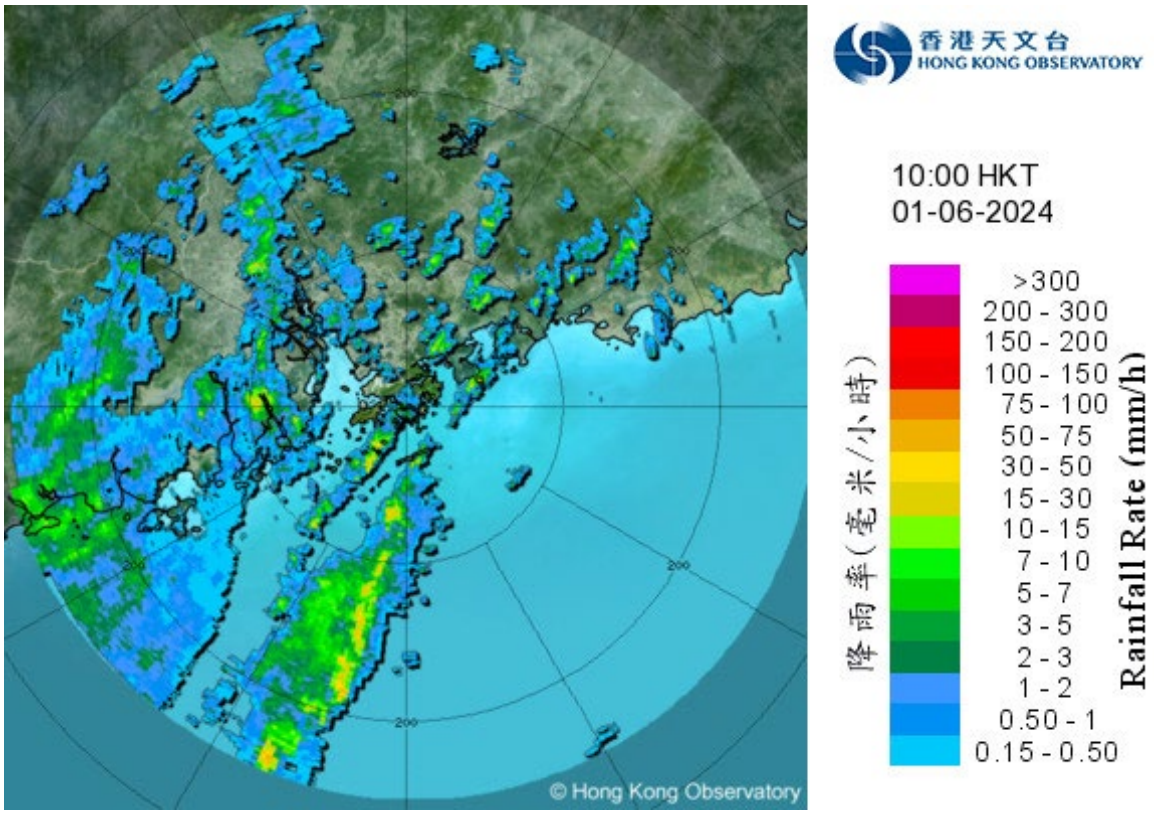

圖 3.1.5　二零二四年六月一日上午 10 時正的雷達回波圖像。當時馬力斯的中心位於香港之西北偏西約 210 公里的廣東內陸，與其相關的外圍雨帶正影響廣東及南海北部。

Figure 3.1.5　Radar echoes captured at 10:00 a.m. on 1 June 2024. The centre of Maliksi was over inland Guangdong around 210 km west-northwest of Hong Kong at that time. The outer rainbands associated with Maliksi were affecting Guangdong and the northern part of the SCS.

圖 3.1.6　馬力斯(2402)影響香港期間，紅棉路支路有斷枝阻塞往中環的唯一行車線。(鳴謝：Now 新聞)

Figure 3.1.6　A broken branch blocked the only lane of Cotton Tree Drive slip road towards Central during the passage of Maliksi (2402). (Courtesy of Now News)

3.2 強烈熱帶風暴派比安(2404)：二零二四年七月十九日至二十三日

派比安是二零二四年第二個影響香港的熱帶氣旋。

熱帶低氣壓派比安於七月十九日下午在西沙之東南偏東約630公里的南海中部上形成，向西北偏西移動，橫過南海中部。派比安於七月二十一日早上增強為熱帶風暴，並轉向西北偏北移動，移向海南島。當晚派比安登陸海南島前進一步增強為強烈熱帶風暴。派比安於七月二十二日凌晨在海南島萬寧市登陸，並在橫過海南島期間稍為減弱為熱帶風暴。派比安在橫過北部灣期間再次增強為強烈熱帶風暴，並於七月二十二日傍晚達到其最高強度，中心附近最高持續風速估計為每小時105公里。派比安於七月二十三日早上在越南北部登陸，隨後移入內陸並逐漸減弱，最後於當晚減弱為低壓區。

根據報章報導，派比安為海南島帶來狂風暴雨，當地多處有樹木倒塌，超過22萬戶停電。

天文台在七月二十日晚上10時40分發出一號戒備信號，當時派比安集結在香港之西南偏南約710公里。翌日本港吹和緩至清勁東至東南風，離岸及高地間中吹強風。派比安於七月二十二日凌晨2時左右最接近香港，在本港西南約570公里掠過。隨著派比安遠離香港，天文台於七月二十二日下午12時20分取消所有熱帶氣旋警告信號。

派比安對香港的影響不大，期間並沒有嚴重破壞報告。在派比安的影響下，尖鼻咀錄得最高潮位(海圖基準面以上)3.17米及最大風暴潮(天文潮高度以上)0.30米。天文台總部於七月二十二日上午4時00分錄得最低瞬時海平面氣壓1005.2百帕斯卡。

派比安的外圍雨帶在七月二十一日為本港帶來幾陣狂風驟雨及雷暴。隨著派比安遠離本港，七月二十二日本港日間酷熱及部分時間有陽光。

3.2 Severe Tropical Storm Prapiroon (2404): 19 to 23 July 2024

Prapiroon was the second tropical cyclone affecting Hong Kong in 2024.

Prapiroon formed as a tropical depression over the central part of the SCS about 630 km east-southeast of Xisha on the afternoon of 19 July and moved west-northwestwards across the central part of the SCS. It intensified into a tropical storm on the morning of 21 July and turned to move north-northwestwards towards Hainan Island. Before making landfall over Hainan Island, Prapiroon further intensified into a severe tropical storm that night. Prapiroon made landfall over Wanning, Hainan in the small hours of 22 July and weakened slightly into a tropical storm as it moved across Hainan Island. Prapiroon re-intensified into a severe tropical storm as it moved across Beibu Wan. It attained its peak intensity with an estimated maximum sustained wind of 105 km/h near its centre on the evening of 22 July. Prapiroon made landfall over the northern part of Vietnam on the morning of 23 July. It then moved inland and weakened gradually. Prapiroon finally degenerated into an area of low pressure that night.

According to press reports, Prapiroon brought torrential rain and squalls to Hainan Island, resulting in fallen trees in many parts of the region and an interruption to electricity supply to over 220 000 households.

The Standby Signal No. 1 was issued at 10:40 p.m. on 20 July, when Prapiroon was about 710 km south-southwest of Hong Kong. Local winds were moderate to fresh east to southeasterlies and occasionally strong offshore and on high ground the next day. Prapiroon came closest to Hong Kong at around 2 a.m. on 22 July, skirting past about 570 km southwest of the territory. With Prapiroon departing from Hong Kong, all tropical cyclone warning signals were cancelled at 12:20 p.m. on 22 July.

Prapiroon did not cause any significant damage in Hong Kong during its passage. Under the influence of Prapiroon, a maximum sea level of 3.17 m (above chart datum) and a maximum storm surge of 0.30 m (above astronomical tide) were recorded at Tsim Bei Tsui. At the Observatory Headquarters, the lowest instantaneous mean sea-level pressure of 1005.2 hPa was recorded at 4:00 a.m. on 22 July.

The outer rainbands of Prapiroon brought a few squally showers and thunderstorms to Hong Kong on 21 July. With Prapiroon departing from Hong Kong, it was very hot with sunny periods during the day on 22 July.

表 3.2.1　在派比安影響下，本港各站在熱帶氣旋警告信號生效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 when the tropical cyclone warning signals for Prapiroon were in force

站 (參閱圖 1.1) Station (See Fig. 1.1)		最高陣風 Maximum Gust					最高每小時平均風速 Maximum Hourly Mean 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
黃麻角(赤柱)	Bluff Head (Stanley)	東南偏南	SSE	42	20/7	23:36	東南偏南	SSE	27	21/7	00:00
中環碼頭	Central Pier	東北偏東	ENE	48	21/7	22:04	東	E	25	22/7	12:00
長洲	Cheung Chau	東南偏東	ESE	72	21/7	04:32	東南偏東	ESE	39	21/7	00:00
長洲泳灘	Cheung Chau Beach	東南偏東	ESE	53	21/7	05:05	東	E	37	20/7	23:00
青洲	Green Island	東北偏東	ENE	53	21/7	16:29	東北偏東	ENE	32	21/7	15:00
香港國際機場	Hong Kong International Airport	東南偏東	ESE	55	21/7	11:46	東南偏東	ESE	24	22/7	11:00
啟德	Kai Tak	東南	SE	43	21/7	21:50	東南	SE	21	21/7	00:00
京士柏	King's Park	東	E	45	21/7	21:56	東南偏東	ESE	18	21/7	22:00
南丫島	Lamma Island	東南偏東	ESE	39	21/7	00:01	東南偏東	ESE	22	21/7	00:00
流浮山	Lau Fau Shan	東	E	41	21/7	11:53	東	E	22	21/7	15:00
昂坪	Ngong Ping	東	E	78	20/7	23:19	東	E	57	21/7	00:00
北角	North Point	東北偏東	ENE	42	21/7	21:57	東	E	23	21/7	21:00
坪洲	Peng Chau	東	E	55	21/7	11:17	東	E	28	21/7	15:00
平洲	Ping Chau	東北偏東	ENE	30	21/7	10:04	東北偏東	ENE	9	21/7	13:00
西貢	Sai Kung	東南	SE	42	21/7	21:43	東	E	19	21/7	16:00
							東	E	19	21/7	17:00
沙洲	Sha Chau	東南	SE	55	21/7	11:46	東南偏東	ESE	21	20/7	23:00
沙螺灣	Sha Lo Wan	東南偏東	ESE	37	21/7	00:24	東	E	14	21/7	10:00
沙田	Sha Tin	東南	SE	32	20/7	23:47	東南	SE	12	21/7	02:00
		東南	SE	32	21/7	01:08					
九龍天星碼頭	Star Ferry (Kowloon)	東	E	40	21/7	21:56	東	E	21	21/7	00:00
打鼓嶺	Ta Kwu Ling	東南偏東	ESE	37	21/7	22:19	東	E	15	21/7	12:00
大美督	Tai Mei Tuk	東南偏東	ESE	56	21/7	22:04	東	E	28	21/7	00:00
大帽山	Tai Mo Shan	東南偏東	ESE	69	21/7	22:16	東南偏東	ESE	52	22/7	00:00
塔門東	Tap Mun East	東南偏東	ESE	71	21/7	08:29	東南偏東	ESE	38	21/7	00:00
大老山	Tate's Cairn	東南	SE	60	21/7	21:51	東南偏東	ESE	35	21/7	00:00
將軍澳	Tseung Kwan O	東南偏南	SSE	32	20/7	23:33	東南	SE	13	21/7	00:00
青衣島蜆殼油庫	Tsing Yi Shell Oil Depot	東	E	40	21/7	22:13	東南偏東	ESE	14	21/7	01:00
屯門政府合署	Tuen Mun Government Offices	東	E	40	21/7	22:29	東南偏南	SSE	17	22/7	12:00
橫瀾島	Waglan Island	東	E	40	20/7	23:49	東	E	32	20/7	23:00
		東	E	40	20/7	23:50					
濕地公園	Wetland Park	東北偏東	ENE	28	21/7	09:21	東	E	9	21/7	12:00
							東	E	9	21/7	15:00
							東	E	9	21/7	16:00
黃竹坑	Wong Chuk Hang	東南偏東	ESE	38	21/7	06:44	東	E	14	21/7	00:00

石崗、大埔滘 - 沒有資料　　Shek Kong, Tai Po Kau - data not available

表 3.2.2　派比安影響香港期間，香港天文台總部及其他各站所錄得的日雨量
Table 3.2.2　Daily rainfall amounts recorded at the Hong Kong Observatory Headquarters and other stations during the passage of Prapiroon

站 (參閱圖 3.2.2) Station (See Fig. 3.2.2)			七月二十日 20 Jul	七月二十一日 21 Jul	七月二十二日 22 Jul	總雨量(毫米) Total rainfall (mm)
香港天文台 Hong Kong Observatory (HKO)			3.7	4.7	0.2	8.6
香港國際機場 Hong Kong International Airport (HKA)			2.8	24.4	微量 Trace	27.2
長洲 Cheung Chau (CCH)			1.5	18.5	13.0	33.0
H23	香港仔	Aberdeen	4.0	5.0	1.0	10.0
N05	粉嶺	Fanling	10.5	3.0	0.0	13.5
N13	糧船灣	High Island	11.0	0.0	8.5	19.5
K04	佐敦谷	Jordan Valley	12.5	5.5	0.0	18.0
N06	葵涌	Kwai Chung	11.5	5.0	0.0	16.5
H12	半山區	Mid Levels	6.5	4.5	0.0	11.0
N09	沙田	Sha Tin	11.0	7.5	1.5	20.0
H19	筲箕灣	Shau Kei Wan	4.5	1.5	0.0	6.0
SEK	石崗	Shek Kong	8.0	2.5	0.0	10.5
K06	蘇屋邨	So Uk Estate	6.0	8.5	0.0	14.5
R31	大美督	Tai Mei Tuk	14.0	18.5	3.0	35.5
R21	踏石角	Tap Shek Kok	7.5	0.0	0.0	7.5
N17	東涌	Tung Chung	0.0	13.0	1.5	14.5
TMR	屯門水庫	Tuen Mun Reservoir	3.7	1.6	0.0	5.3

表 3.2.3　派比安影響香港期間，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 tide stations in Hong Kong during the passage of Prapiroon

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
鰂魚涌	Quarry Bay	2.63	22/7	08:06	0.27	22/7	01:25
石壁	Shek Pik	2.76	22/7	09:02	0.21	21/7	06:56
大廟灣	Tai Miu Wan	2.57	22/7	08:16	0.24	21/7	18:24
大埔滘	Tai Po Kau	2.62	21/7	05:51	0.27	22/7	04:44
尖鼻咀	Tsim Bei Tsui	3.17	22/7	09:46	0.30	22/7	03:00
橫瀾島	Waglan Island	2.58	22/7	08:25	0.15	22/7	00:49

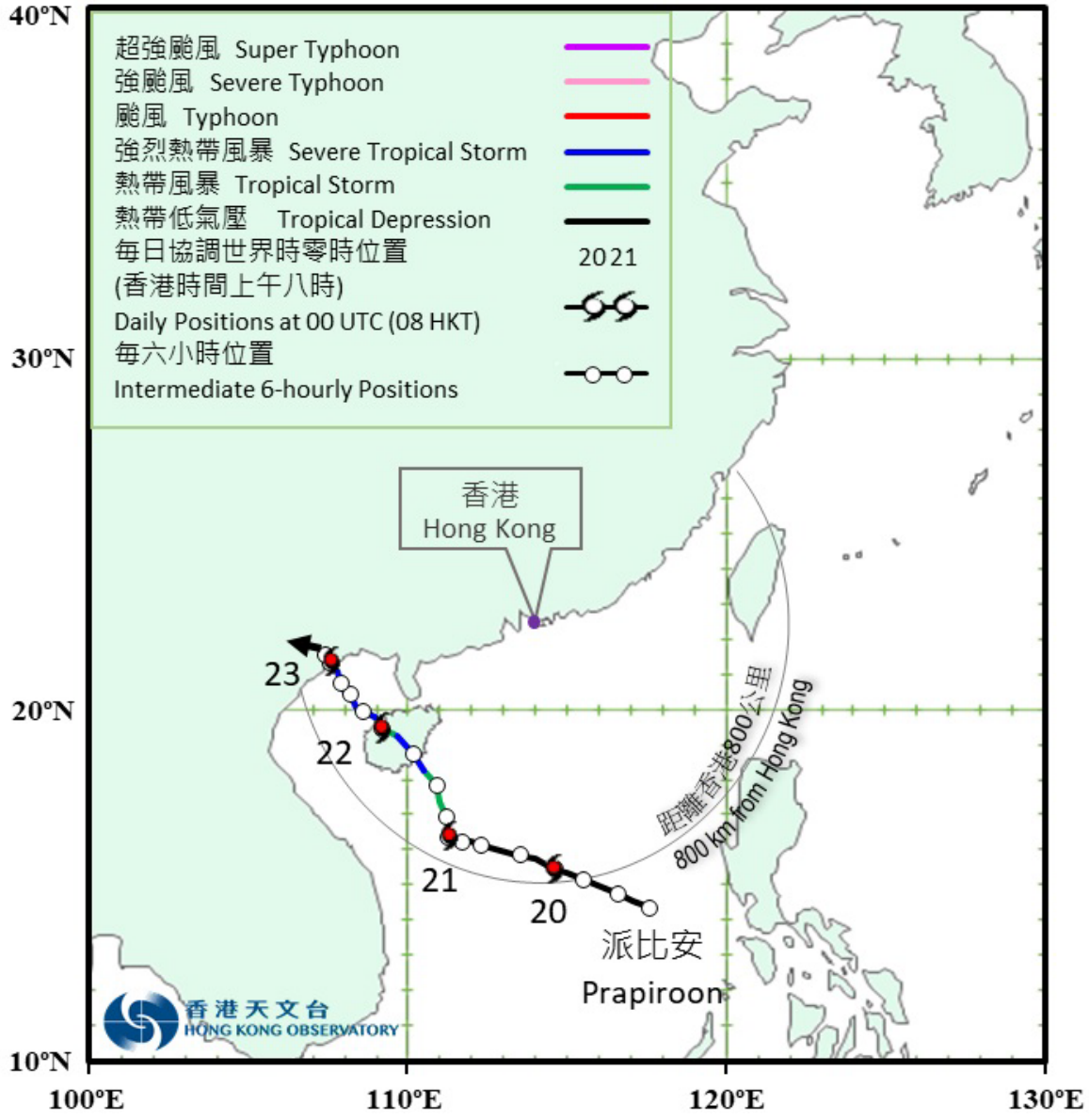

圖 3.2.1　　二零二四年七月十九日至二十三日派比安(2404)的路徑圖。

Figure 3.2.1　Track of Prapiroon (2404): 19 – 23 July 2024.

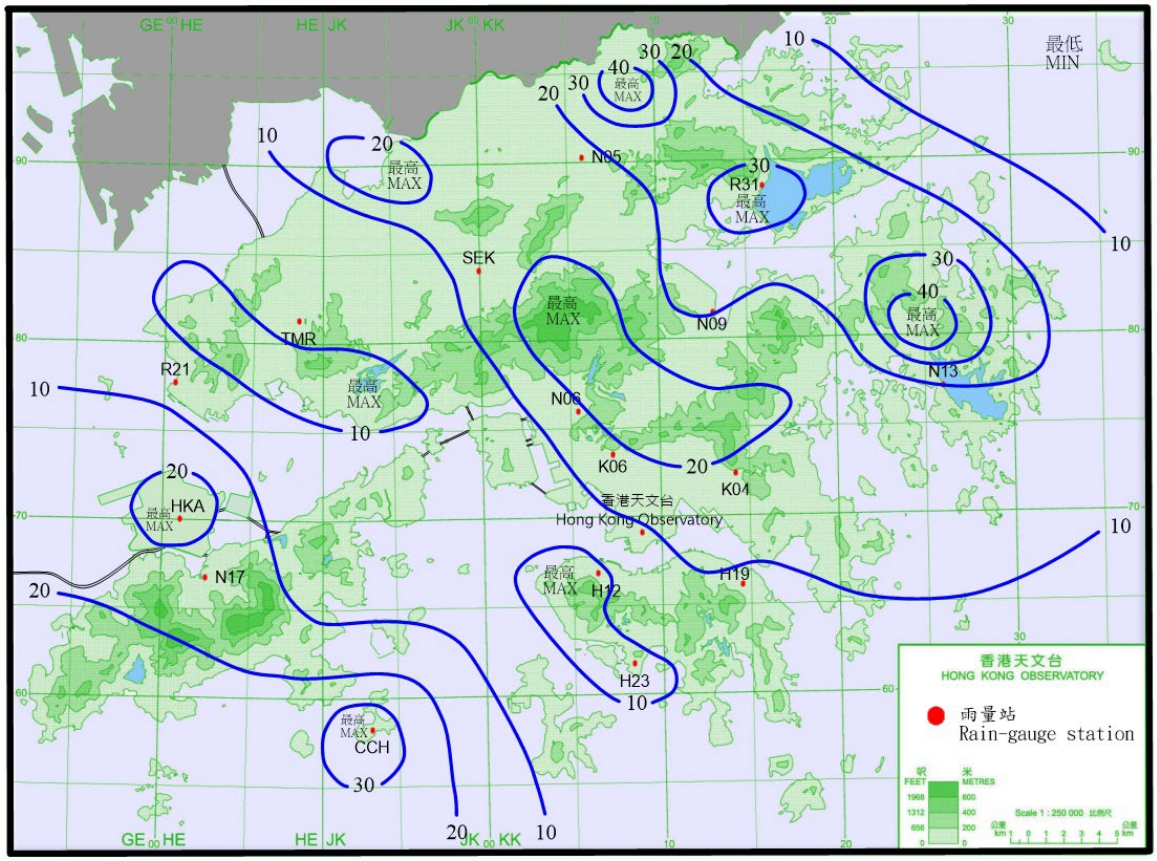

圖 3.2.2　　二零二四年七月二十日至二十二日的雨量分佈(等雨量線單位為毫米)。

Figure 3.2.2　Rainfall distribution on 20 – 22 July 2024 (isohyets are in millimetres).

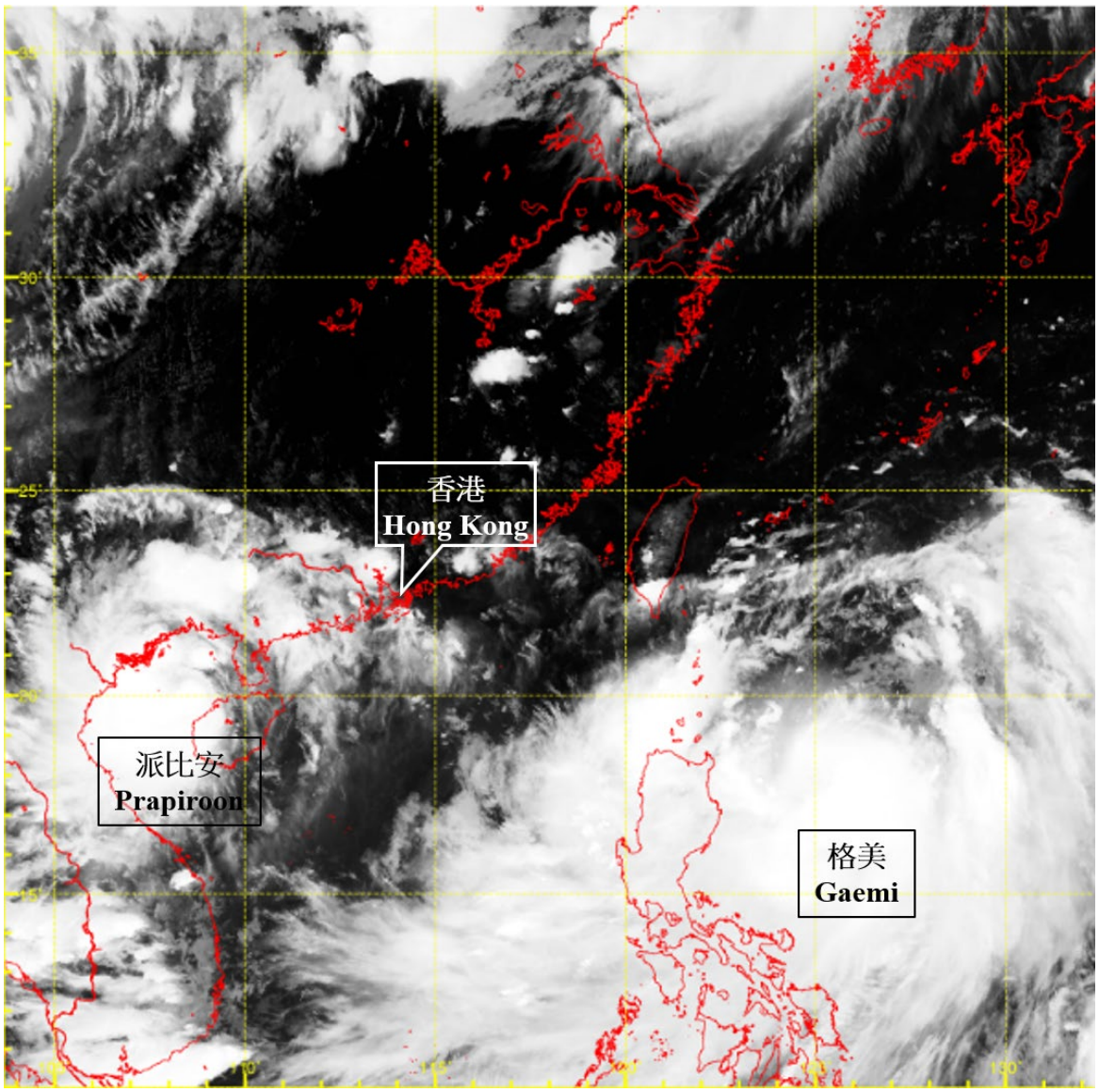

圖 3.2.3　二零二四年七月二十二日下午5時左右的紅外線衛星圖片，當時派比安達到其最高強度，中心附近最高持續風速估計為每小時105公里。此外，位於呂宋以東的強烈熱帶風暴格美正向偏北方向移動。

Figure 3.2.3　Infra-red satellite imagery at around 5 p.m. on 22 July 2024 when Prapiroon was at its peak intensity with an estimated maximum sustained wind of 105 km/h near its centre. Besides, severe tropical storm Gaemi to the east of Luzon was moving northwards.

〔此衛星圖像接收自日本氣象廳的向日葵9號衛星。〕

[The satellite imagery was originally captured by Himawari-9 Satellite (H-9) of Japan Meteorological Agency (JMA).]

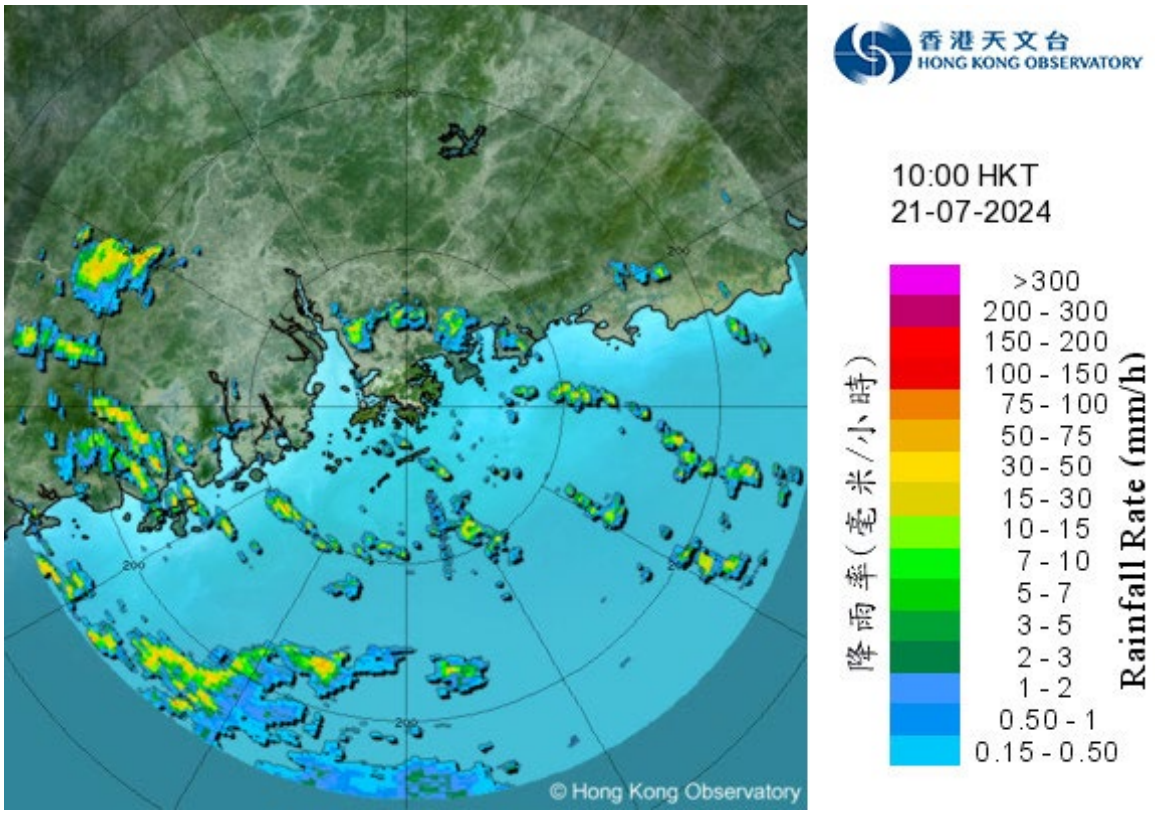

圖 3.2.4　二零二四年七月二十一日上午10時正的雷達回波圖像。與派比安相關的外圍雨帶正影響廣東沿岸及南海北部。

Figure 3.2.4　Radar echoes captured at 10:00 a.m. on 21 July 2024. The outer rainbands associated with Prapiroon were affecting the coast of Guangdong and the northern part of the SCS.

3.3 超強颱風摩羯(2411)：二零二四年九月一日至八日

摩羯是二零二四年第三個影響香港的熱帶氣旋。摩羯吹襲香港期間，天文台需要發出二零二四年首個八號烈風或暴風信號。

熱帶低氣壓摩羯於九月一日早上在馬尼拉之東南偏東約560公里的菲律賓中部以東海域上形成，向西北移向呂宋，並於當晚增強為熱帶風暴。翌日摩羯橫過呂宋，並於九月三日進入南海北部。隨後摩羯採取偏西路徑，橫過南海北部。在非常溫暖的海水加上微弱的垂直風切變等有利條件下，摩羯於九月四日由強烈熱帶風暴迅速增強為超強颱風。摩羯於九月六日凌晨達到其最高強度，中心附近最高持續風速估計為每小時230公里，成為天文台自一九五零年有記錄以來，南海區域第二強的熱帶氣旋，與二零二三年的超強颱風蘇拉並列。摩羯於當日早上轉向西北偏西移向海南島，並於傍晚在海南島文昌市附近登陸。摩羯於翌日繼續以超強颱風強度橫過北部灣，並於下午在越南北部登陸，隨後移入越南北部內陸並迅速減弱。最後摩羯於九月八日晚上減弱為低壓區。

根據報章報導，摩羯掠過菲律賓期間，造成21人死亡，26人失蹤，22人受傷，超過300萬人受災，超過7 000間房屋受損，經濟損失超過26億菲律賓比索。摩羯在廣東、廣西及海南亦造成超過270萬人受災，超過45萬人需要撤離，其中海南有四人死亡及95人受傷，超過32 000間房屋受損，超過16萬棵樹木倒塌，經濟損失超過786億元人民幣。而摩羯及其殘餘相繼為越南、老撾、泰國及緬甸帶來傾盆大雨，引致多處山洪暴發。越南有至少323人死亡，22人失蹤，1 978人受傷，超過360萬人受災，超過28萬間房屋受損，經濟損失超過 81萬億越南盾。老撾有至少七人死亡，超過18萬人受災，經濟損失超過790萬美元。泰國有至少52人死亡及28人受傷。緬甸有至少360人死亡，100人失蹤，48人受傷，超過110萬人受災，超過14萬間房屋受損。

天文台在九月三日下午5時40分發出一號戒備信號，當時摩羯集結在香港之東南偏南約790公里。當晚及翌日日間本港吹輕微至和緩東北風。隨著摩羯靠近廣東沿岸，天文台在九月四日下午6時40分改發三號強風信號，當時摩羯位於香港以南約590公里。翌日本港風力明顯增強，日間普遍吹強風程度的東至東北風，離岸及高地間中吹烈風。

由於預料與摩羯相關的烈風區會影響香港，天文台在九月五日下午6時20分發出八號東北烈風或暴風信號，當時摩羯集結在香港以南約340公里。當晚本港風力進一步增強，普遍風力達強風至烈風程度，高地更達暴風程度。

摩羯於九月五日晚上8時左右最接近香港，在本港以南約330公里掠過。隨著摩羯遠離本港，翌日早上本港風勢逐漸減弱，天文台在九月六日下午12時40分改發三號強風信號，取代八號東北烈風或暴風信號。隨著摩羯進一步遠離香港，天文台在九月七日上午4時20分取消所有熱帶氣旋警告信號。但由於本港離岸及高地初時仍受偏東強風影響，天文台隨即在上午4時21分發出強烈季候風信號，直至當日下午12時45分取消。

在摩羯的影響下，昂坪、橫瀾島及長洲泳灘錄得的最高每小時平均風速分別為每小時94、80及78公里，而最高陣風則分別為每小時149、103及106公里。尖鼻咀錄得最高潮位(海圖基準面以上) 2.86米，而大埔滘則錄得最大風暴潮(天文潮高度以上) 0.67米。各站錄得的最低瞬時海平面氣壓如下：

站	最低瞬時海平面氣壓(百帕斯卡)	日期/月份	時間
香港天文台總部	997.3	5/9	下午3時33分
香港國際機場	997.4	5/9	下午3時37分
長洲	997.5	5/9	下午3時31分
京士柏	997.2	5/9	下午3時34分
流浮山	997.5	5/9	下午3時39分
坪洲	997.2	5/9	下午3時41分
沙田	998.1	5/9	下午3時28分
上水	997.3	5/9	下午3時33分
打鼓嶺	997.6	5/9	下午3時31分
大埔(元洲仔公園)	998.5	5/9	下午3時29分
橫瀾島	996.9	5/9	下午6時08分

在高空反氣旋的影響下，本港九月四日至五日日間仍然酷熱及短暫時間有陽光。隨著摩羯靠近，當日稍後本港天氣轉壞，摩羯的外圍雨帶於九月五日晚上及隨後兩天為本港帶來大驟雨、猛烈陣風及雷暴。九月五日晚上中環碼頭曾錄得約每小時139公里的猛烈陣風，僅次於該站在二零一八年超強颱風山竹及二零二三年超強颱風蘇拉襲港期間錄得的紀錄（該站於2005年開始啟用）。九月五日至七日本港大部分地區錄得超過100毫米雨量，而新界東北部的雨量更超過200毫米。

摩羯吹襲香港期間，有至少581宗塌樹報告、一宗水浸報告及兩宗山泥傾瀉報告。風暴期間共造成九人受傷。香港國際機場有兩班航班需要轉飛其他地方。香港水域有三宗船隻損失或毀壞報告。

3.3 Super Typhoon Yagi (2411): 1 to 8 September 2024

Yagi was the third tropical cyclone affecting Hong Kong in 2024. The Observatory issued the first No. 8 Gale or Storm Signal in 2024 during the passage of Yagi.

Yagi formed as a tropical depression over the seas east of the central part of the Philippines about 560 km east-southeast of Manila on the morning of 1 September. It moved northwestwards towards Luzon and intensified into a tropical storm that night. Yagi moved across Luzon the next day and entered the northern part of the SCS on 3 September. Yagi then tracked generally westwards across the northern part of the SCS. Under the favourable conditions of very warm sea water and weak vertical wind shear, Yagi rapidly intensified into a super typhoon from a severe tropical storm on 4 September. Yagi attained its peak intensity with an estimated maximum sustained wind of 230 km/h near its centre in the small hours on 6 September, making it the second strongest tropical cyclone in the SCS since the Observatory's records began in 1950, on par with Super Typhoon Saola in 2023. Yagi turned to move west-northwestwards towards Hainan Island that morning and made landfall near Wenchang, Hainan Island that evening. Yagi continued to maintain super typhoon intensity while moving across Beibu Wan the next day, and made landfall near the northern part of Vietnam in the afternoon. It then moved into inland areas of the northern part of Vietnam and weakened rapidly. Yagi finally degenerated into an area of low pressure on the night of 8 September.

According to press reports, Yagi left 21 deaths, 26 missing and 22 injuries in the Philippines during its passage. More than 3 million people were affected, over 7 000 houses were damaged and economic loss exceeded PHP 2.6 billion. In Guangdong, Guangxi and Hainan, more than 2.7 million people were affected and over 450 000 people were evacuated. Yagi left 4 deaths and 95 injuries in Hainan. More than 32 000 houses were damaged, the number of fallen trees amounted to over 160 000, and economic loss exceeded RMB 78.6 billion. Yagi and its remnant brought torrential rain to Vietnam, Lao PDR, Thailand and Myanmar, triggering landslides and flooding in many places. In Vietnam, there were at least 323 deaths, 22 missing and 1 978 injuries. More than 3.6 million people were affected, over 280 000 houses were damaged, and economic loss exceeded VND 81 trillion. In Lao PDR, there were at least 7 deaths and more than 180 000 people affected. Economic loss exceeded USD 7.9 million. In Thailand, there were at least 52 deaths and 28 injuries. In Myanmar, there were at least 360 deaths, 100 missing and 48 injuries. More than 1.1 million people were affected and over 140 000 houses were damaged.

The Standby Signal No. 1 was issued at 5:40 p.m. on 3 September, when Yagi was about 790 km south-southeast of Hong Kong. Local winds were light to moderate northeasterlies that night and during the day the next day. With Yagi edging closer to the coast of Guangdong, the No. 3 Strong Wind Signal was issued at 6:40 p.m. on 4 September, when Yagi was about 590 km south of Hong Kong. Winds over Hong Kong strengthened significantly the next day. Local winds were generally strong east to northeasterlies during the day, occasionally reaching gale force offshore and on high ground.

As the gale force winds associated with Yagi were expected to affect the territory, the No. 8 Northeast Gale or Storm Signal was issued at 6:20 p.m. on 5 September when Yagi was about 340 km south of Hong Kong. Local winds strengthened further, reaching generally strong to gale force, with winds on high ground even reaching storm force that night.

Yagi came closest to Hong Kong at around 8 p.m. on 5 September, when it skirted past about 330 km south of the territory. With Yagi departing from the territory, local winds moderated gradually the next morning. The No. 8 Northeast Gale or Storm Signal was replaced by the No. 3 Strong Wind Signal at 12:40 p.m. on 6 September. As Yagi moved further away from Hong Kong, all tropical cyclone warning signals were cancelled at 4:20 a.m. on 7 September. However, strong easterly winds still affected the offshore and high ground of the territory at first. The Strong Monsoon Signal was issued immediately afterwards at 4:21 a.m. and cancelled at 12:45 p.m. that day.

Under the influence of Yagi, maximum hourly mean winds of 94, 80 and 78 km/h and gusts of 149, 103 and 106 km/h were recorded at Ngong Ping, Waglan Island and Cheung Chau Beach respectively. A maximum sea level of 2.86 m (above chart datum) was recorded at Tsim Bei Tsui and a maximum storm surge of 0.67 m (above astronomical tide) was recorded at Tai Po Kau. The lowest instantaneous mean sea-level pressures recorded at selected stations are as follows:

Station	Lowest instantaneous mean sea-level pressure (hPa)	Date/Month	Time
Hong Kong Observatory Headquarters	997.3	5/9	3:33 p.m.
Hong Kong International Airport	997.4	5/9	3:37 p.m.
Cheung Chau	997.5	5/9	3:31 p.m.
King's Park	997.2	5/9	3:34 p.m.
Lau Fau Shan	997.5	5/9	3:39 p.m.
Peng Chau	997.2	5/9	3:41 p.m.
Sha Tin	998.1	5/9	3:28 p.m.
Sheung Shui	997.3	5/9	3:33 p.m.
Ta Kwu Ling	997.6	5/9	3:31 p.m.
Tai Po (Yuen Chau Tsai Park)	998.5	5/9	3:29 p.m.
Waglan Island	996.9	5/9	6:08 p.m.

Under the influence of an anticyclone aloft, the weather of Hong Kong was still very hot with sunny intervals during the day on 4 – 5 September. With the approach of Yagi, the weather of Hong Kong deteriorated later on that day. The outer rainbands of Yagi brought heavy showers, violent gusts and thunderstorms to Hong Kong on the night of 5 September and the next two days. Violent gusts of around 139 km/h were once recorded at Central Pier on the night of 5 September, just below the gusts recorded at the station (launched in 2005) during the passages of Super Typhoon Mangkhut in 2018 and Super Typhoon Saola in 2023. More than 100 millimetres of rainfall were recorded over most parts of Hong Kong on 5 – 7 September and rainfall even exceeded 200 millimetres over the northeastern part of the New Territories.

In Hong Kong, there were at least 581 reports of fallen trees, one report of flooding and two reports of landslide during the passage of Yagi. A total of nine people were injured during the period. Two flights were diverted at the Hong Kong International Airport. There were three reports of ships lost or damaged in Hong Kong waters.

表 3.3.1　在摩羯影響下，本港各站在熱帶氣旋警告信號生效時所錄得的最高陣風、最高每小時平均風速及風向

Table 3.3.1　Maximum gust peak speeds and maximum hourly mean winds with associated wind directions recorded at various stations when the tropical cyclone warning signals for Yagi were in force

站 (參閱圖 1.1) Station (See Fig. 1.1)		最高陣風 Maximum Gust					最高每小時平均風速 Maximum Hourly Mean 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
黃麻角(赤柱)	Bluff Head (Stanley)	東	E	87	5/9	19:52	東南偏南	SSE	44	6/9	21:00
中環碼頭	Central Pier	東南偏東	ESE	139	5/9	22:11	東	E	46	6/9	00:00
長洲	Cheung Chau	東	E	107	5/9	22:08	東	E	66	6/9	21:00
長洲泳灘	Cheung Chau Beach	東	E	106	5/9	22:11	東北偏東	ENE	78	5/9	21:00
青洲	Green Island	東北偏東	ENE	139	5/9	22:14	東北偏東	ENE	66	5/9	21:00
香港國際機場	Hong Kong International Airport	東	E	78	5/9	22:30	東北偏東	ENE	37	5/9	22:00
啟德	Kai Tak	東	E	75	6/9	02:25	東南偏東	ESE	30	7/9	01:00
京士柏	King's Park	東北	NE	77	5/9	20:22	東北偏東	ENE	27	5/9	19:00
南丫島	Lamma Island	東	E	85	5/9	20:06	東	E	39	5/9	21:00
流浮山	Lau Fau Shan	東	E	63	6/9	03:29	東北偏北	NNE	30	5/9	15:00
昂坪	Ngong Ping	東	E	149	5/9	22:43	東	E	94	6/9	01:00
北角	North Point	東	E	96	5/9	22:09	東北偏東	ENE	51	5/9	22:00
坪洲	Peng Chau	東南偏東	ESE	125	5/9	22:18	東	E	60	5/9	22:00
平洲	Ping Chau	東北偏東	ENE	61	5/9	22:47	東北偏東	ENE	16	5/9	23:00
							東北偏東	ENE	16	6/9	18:00
							東北偏東	ENE	16	6/9	22:00
西貢	Sai Kung	東南偏東	ESE	89	5/9	22:09	東北偏東	ENE	42	6/9	00:00
沙洲	Sha Chau	東北	NE	75	5/9	18:56	東北	NE	40	5/9	20:00
沙田	Sha Tin	東	E	65	6/9	01:08	東南	SE	23	7/9	04:00
石崗	Shek Kong	-	-	74	6/9	09:19	-	-	32	5/9	22:00
							-	-	32	6/9	10:00
九龍天星碼頭	Star Ferry (Kowloon)	東	E	102	5/9	22:12	東	E	36	7/9	01:00
打鼓嶺	Ta Kwu Ling	東北	NE	60	5/9	23:11	東北偏東	ENE	20	6/9	05:00
大美督	Tai Mei Tuk	東	E	94	5/9	23:03	東北偏東	ENE	59	5/9	23:00
大帽山	Tai Mo Shan	東南偏東	ESE	134	6/9	02:38	東	E	75	6/9	03:00
塔門東	Tap Mun East	東南偏東	ESE	105	5/9	22:41	東	E	63	6/9	22:00
大老山	Tate's Cairn	東南偏東	ESE	139	5/9	22:10	東	E	71	5/9	22:00
將軍澳	Tseung Kwan O	東南	SE	87	5/9	22:06	東北偏北	NNE	21	5/9	21:00
青衣島蜆殼油庫	Tsing Yi Shell Oil Depot	東南偏東	ESE	59	7/9	00:32	東南	SE	22	6/9	22:00
屯門政府合署	Tuen Mun Government Offices	東北偏北	NNE	59	5/9	16:06	東北偏北	NNE	21	5/9	19:00
橫瀾島	Waglan Island	東北偏東	ENE	103	5/9	22:03	東北偏東	ENE	80	5/9	21:00
濕地公園	Wetland Park	東北偏東	ENE	45	6/9	03:24	東	E	14	6/9	23:00
黃竹坑	Wong Chuk Hang	東北偏東	ENE	84	6/9	07:38	東	E	30	6/9	01:00

大埔滘、沙螺灣 - 沒有資料　Tai Po Kau, Sha Lo Wan - data not available

石崗 - 沒有風向資料　Shek Kong - wind direction not available

昂坪 - 數據不完整　Ngong Ping - incomplete data

表 3.3.2　在摩羯影響下，熱帶氣旋警告系統的八個參考測風站在熱帶氣旋警告信號生效時錄得持續風力達到強風及烈風程度的時段

Table 3.3.2　Periods during which sustained strong and gale force winds were attained at the eight reference anemometers in the tropical cyclone warning system when tropical cyclone warning signals for Yagi were in force

站 (參閱圖 1.1) Station (See Fig. 1.1)		最初達到強風*時間 Start time when strong wind speed* was attained		最後達到強風*時間 End time when strong wind speed* was attained		最初達到烈風#時間 Start time when gale force wind speed# was attained		最後達到烈風#時間 End time when gale force wind speed# was attained	
		日期/月份 Date/Month	時間 Time	日期/月份 Date/Month	時間 Time	日期/月份 Date/Month	時間 Time	日期/月份 Date/Month	時間 Time
長洲	Cheung Chau	5/9	14:38	7/9	04:20	5/9	19:27	6/9	23:35
香港國際機場	Hong Kong International Airport	3/9	22:59	6/9	09:11	-			
西貢	Sai Kung	5/9	16:32	6/9	17:38	-			

啟德、流浮山、沙田、打鼓嶺及青衣島蜆殼油庫的持續風力未達到強風程度。

The sustained wind speed did not attain strong force at Kai Tak, Lau Fau Shan, Sha Tin, Ta Kwu Ling and Tsing Yi Shell Oil Depot.

- 未達到指定的風速
- not attaining the specified wind speed

* 十分鐘平均風速達每小時 41 - 62 公里
* 10-minute mean wind speed of 41 - 62 km/h

十分鐘平均風速達每小時 63 - 87 公里
10-minute mean wind speed of 63 - 87 km/h

註:　本表列出持續風力達到強風及烈風程度的起始及終結時間。期間風力可能高於或低於指定的風力。

Note:　The table gives the start and end time of sustained strong or gale force winds. Winds might fluctuate above or below the specified wind speeds in between the times indicated.

表 3.3.3　摩羯影響香港期間，香港天文台總部及其他各站所錄得的日雨量
Table 3.3.3　Daily rainfall amounts recorded at the Hong Kong Observatory Headquarters and other stations during the passage of Yagi

站 (參閱圖 3.3.3) Station (See Fig. 3.3.3)			九月三日 3 Sep	九月四日 4 Sep	九月五日 5 Sep	九月六日 6 Sep	九月七日 7 Sep	總雨量(毫米) Total rainfall (mm)
香港天文台 Hong Kong Observatory (HKO)			35.5	0.6	21.5	84.1	5.8	147.5
香港國際機場 Hong Kong International Airport (HKA)			18.8	微量 Trace	18.9	60.0	11.5	109.2
長洲 Cheung Chau (CCH)			9.0	0.0	11.0	51.0	3.5	74.5
H23	香港仔	Aberdeen	7.0	0.0	19.0	66.0	12.5	104.5
N05	粉嶺	Fanling	17.5	19.5	10.5	105.5	39.0	192.0
N13	糧船灣	High Island	0.5	4.0	12.5	125.5	21.5	164.0
K04	佐敦谷	Jordan Valley	20.0	1.0	19.0	97.0	11.0	148.0
N06	葵涌	Kwai Chung	26.5	0.0	19.5	98.0	20.5	164.5
H12	半山區	Mid Levels	16.0	0.5	16.5	106.5	15.0	154.5
N09	沙田	Sha Tin	29.5	0.0	12.5	130.5	39.5	212.0
H19	筲箕灣	Shau Kei Wan	0.0	0.0	23.0	94.5	11.0	128.5
SEK	石崗	Shek Kong	24.5	5.5	21.5	145.5	39.0	236.0
K06	蘇屋邨	So Uk Estate	27.0	2.0	24.5	96.5	12.5	162.5
R31	大美督	Tai Mei Tuk	11.0	1.0	24.5	145.0	31.5	213.0
R21	踏石角	Tap Shek Kok	7.0	1.5	21.5	55.5	16.5	102.0
N17	東涌	Tung Chung	25.5	0.0	18.5	83.5	15.5	143.0
TMR	屯門水庫	Tuen Mun Reservoir	6.0	4.8	26.7	79.6	18.8	135.9

表 3.3.4　摩羯影響香港期間，香港各潮汐站所錄得的最高潮位及最大風暴潮
Table 3.3.4　Times and heights of the maximum sea level and the maximum storm surge recorded at tide stations in Hong Kong during the passage of Yagi

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
鰂魚涌	Quarry Bay	2.47	5/9	11:09	0.57	5/9	22:03
石壁	Shek Pik	2.52	5/9	10:42	0.57	5/9	01:10
大廟灣	Tai Miu Wan	2.36	5/9	11:18	0.49	5/9	21:55
大埔滘	Tai Po Kau	2.52	5/9	23:21	0.67	5/9	23:21
尖鼻咀	Tsim Bei Tsui	2.86	5/9	11:16	0.54	5/9	23:07
橫瀾島	Waglan Island	2.40	5/9	11:17	0.39	5/9	21:06

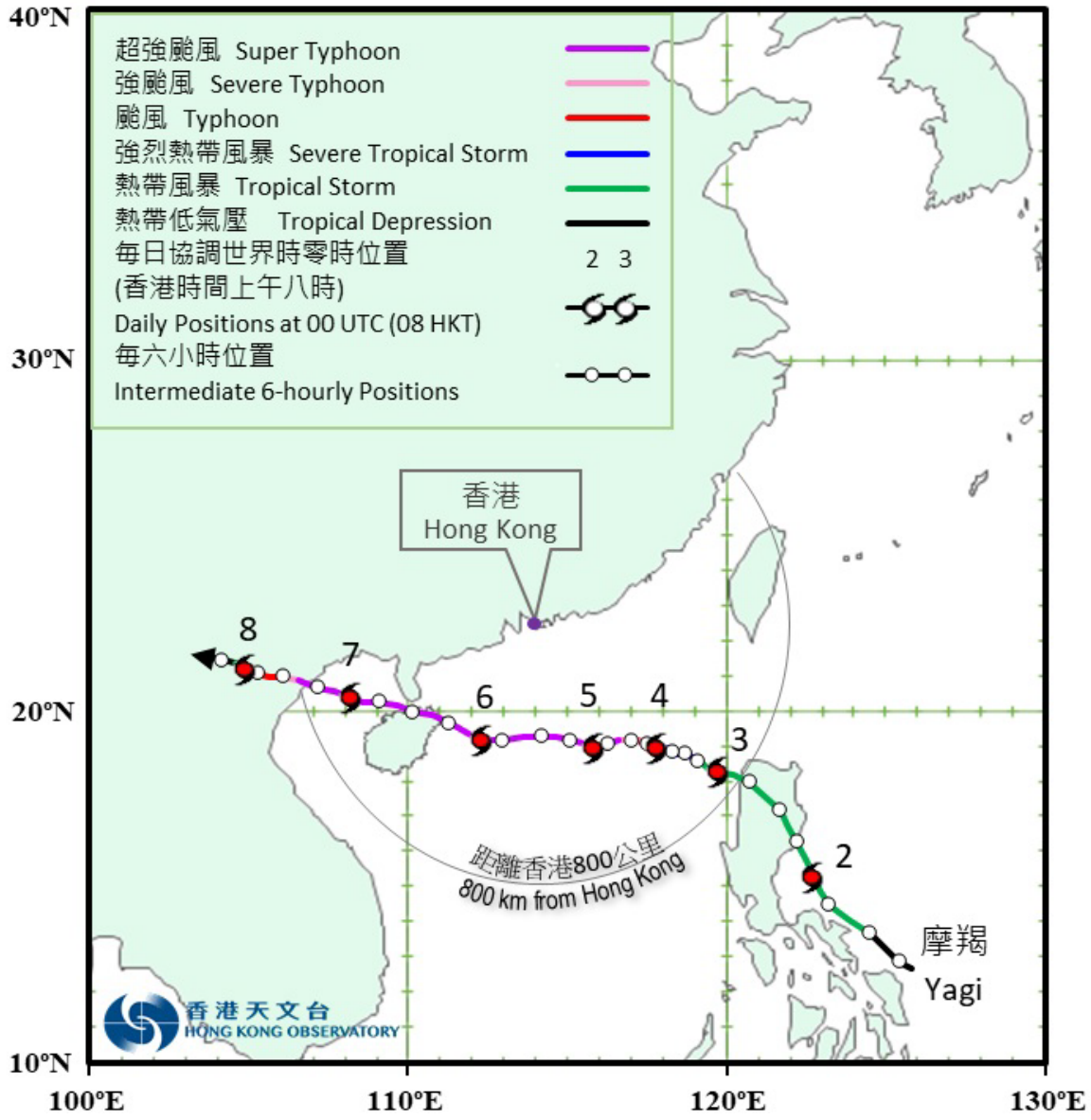

圖 3.3.1a　　二零二四年九月一日至八日摩羯(2411)的路徑圖。

Figure 3.3.1a　Track of Yagi (2411): 1 – 8 September 2024.

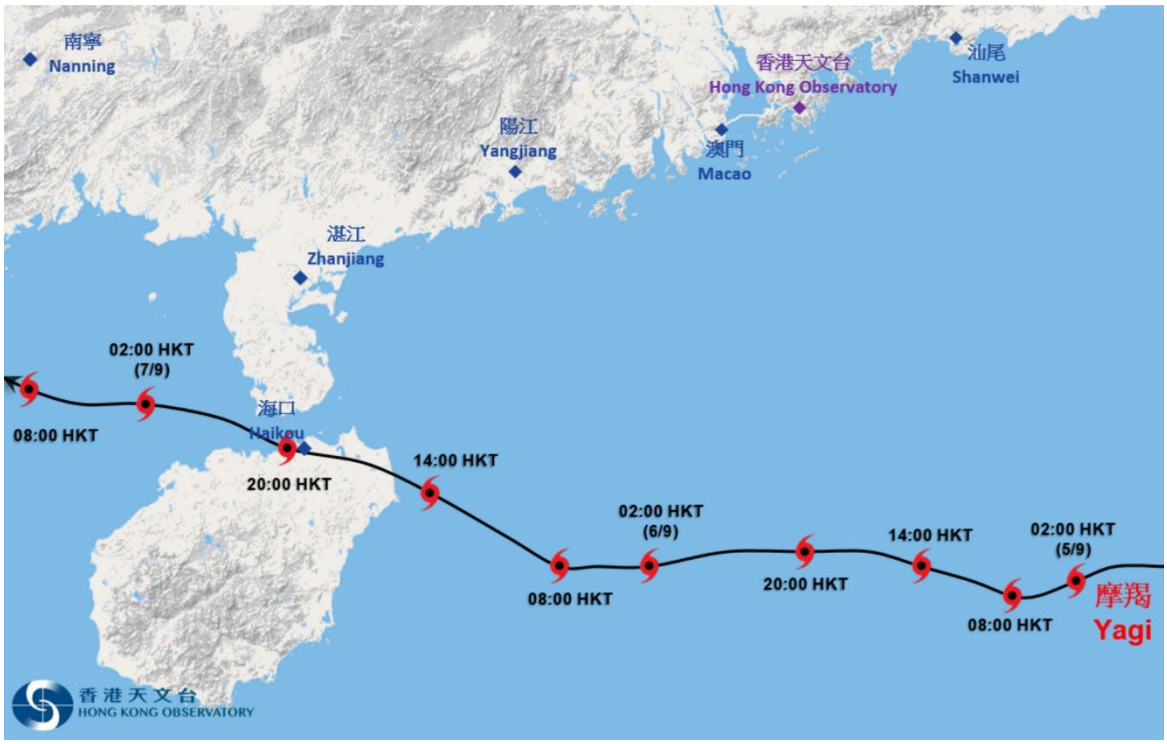

圖 3.3.1b　　摩羯(2411)接近香港時的路徑圖。

Figure 3.3.1b　Track of Yagi (2411) near Hong Kong.

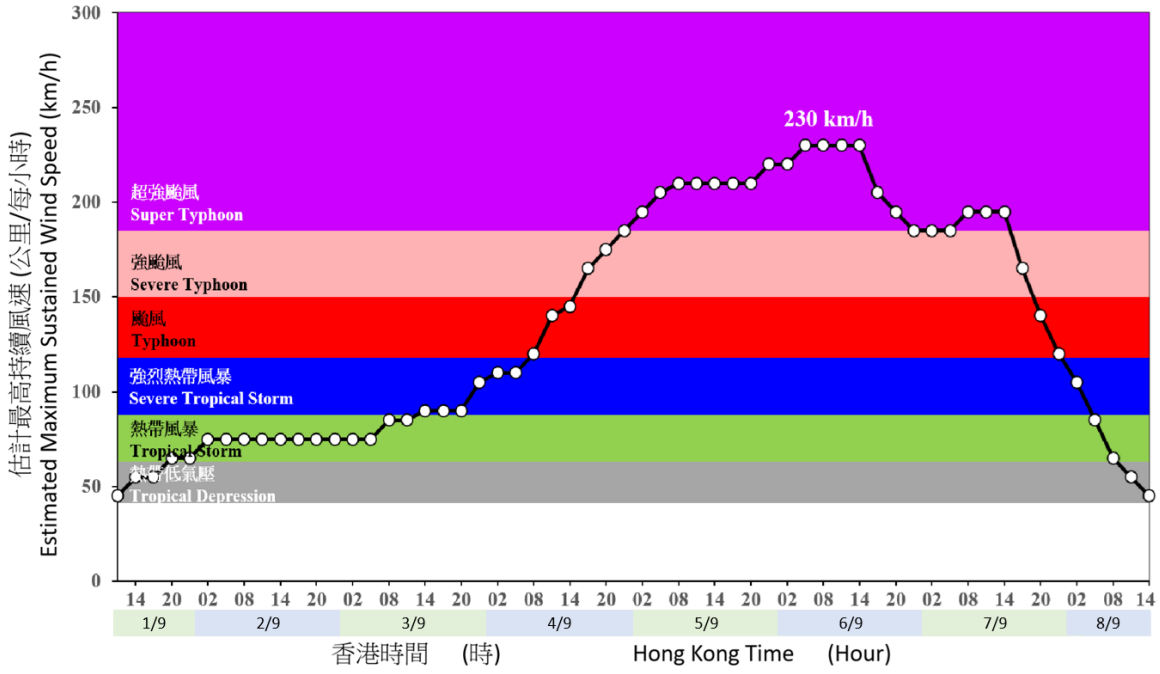

圖 3.3.2　二零二四年九月一日至八日摩羯(2411)之估計最高持續風速的時間序列。

Figure 3.3.2　Time series of the estimated maximum sustained wind speed near the centre of Yagi (2411): 1 – 8 September 2024.

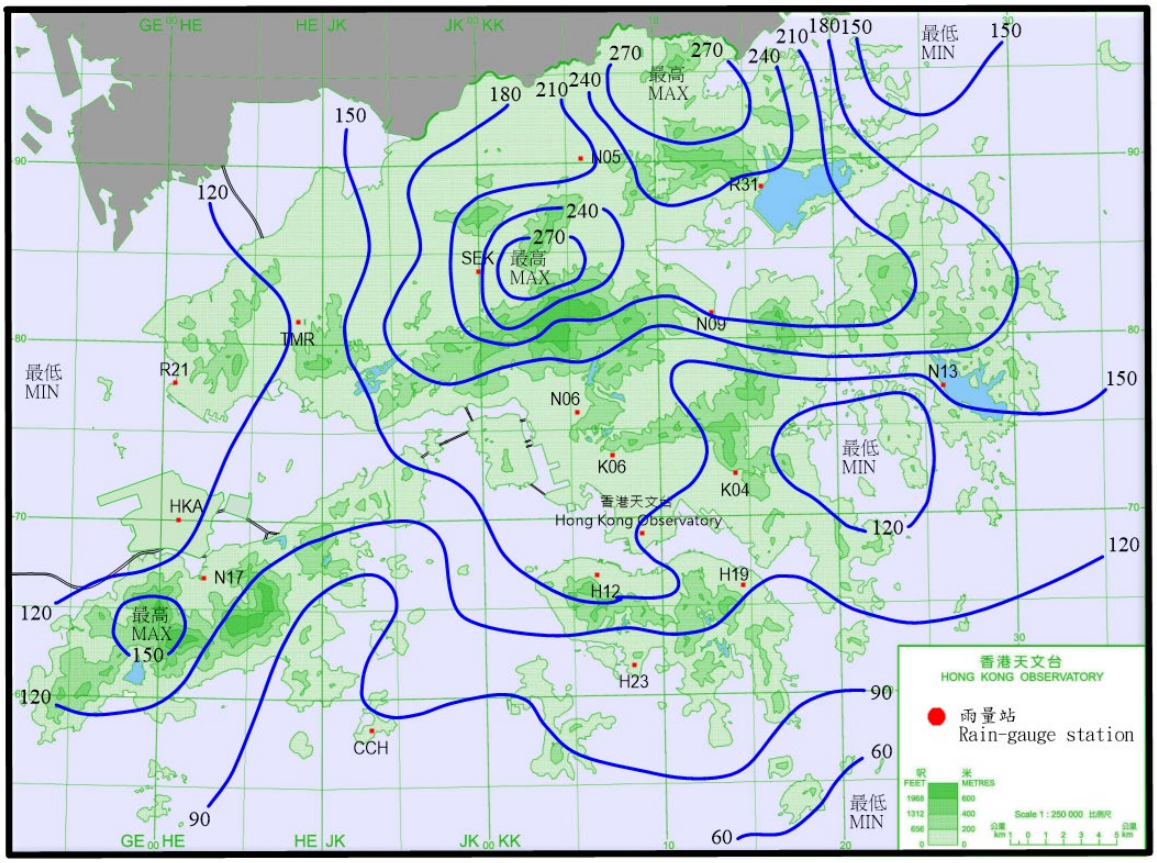

圖 3.3.3　　二零二四年九月三日至七日的雨量分佈(等雨量線單位為毫米)。

Figure 3.3.3　Rainfall distribution on 3 – 7 September 2024 (isohyets are in millimetres).

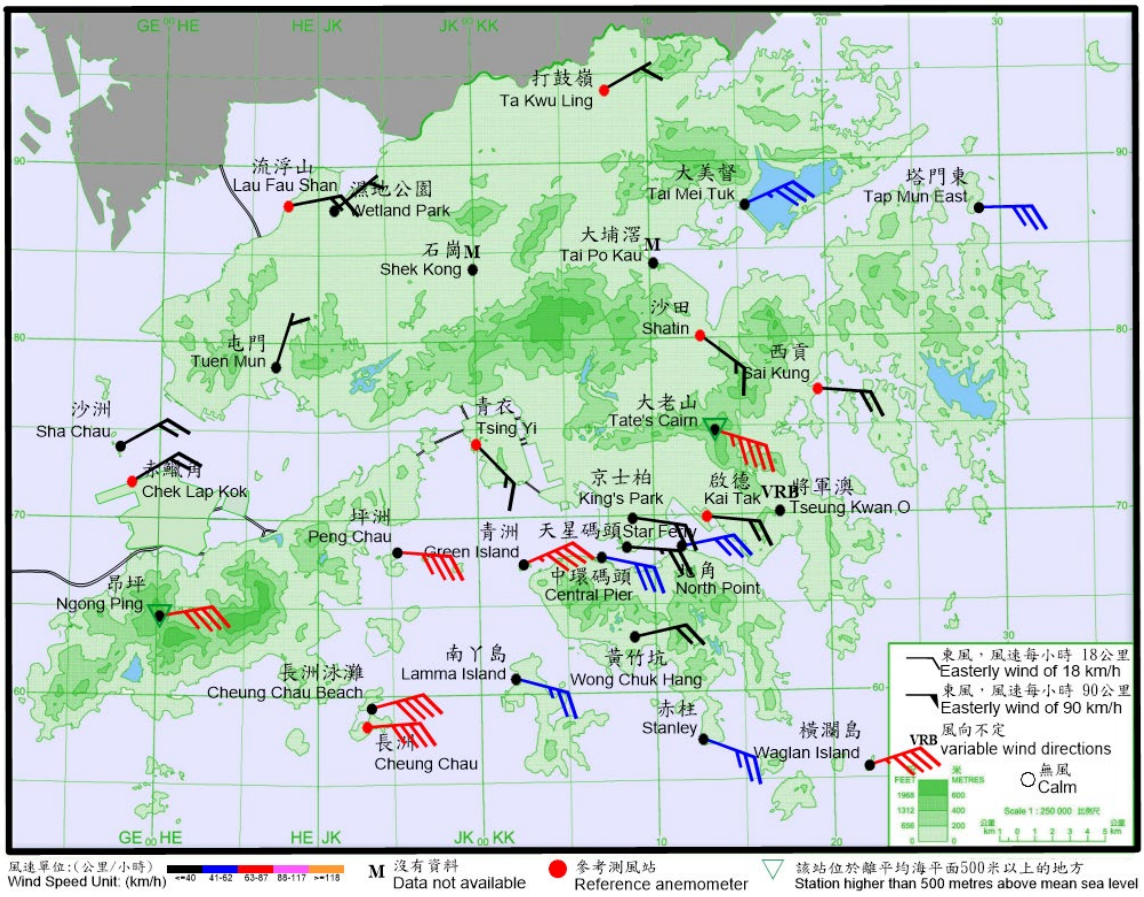

圖 3.3.4a　二零二四年九月五日晚上10時20分香港各站錄得的十分鐘平均風向和風速。當時本港普遍吹東至東北風，長洲、長洲泳灘、坪洲、橫瀾島、昂坪、青州及大老山的風力達到烈風程度。

Figure 3.3.4a　10-minute mean wind direction and speed recorded at various stations in Hong Kong at 10:20 p.m. on 5 September 2024. Local winds were generally east to northeasterlies. Winds at Cheung Chau, Cheung Chau Beach, Peng Chau, Waglan Island, Ngong Ping, Green Island and Tate's Cairn reached gale force at the time.

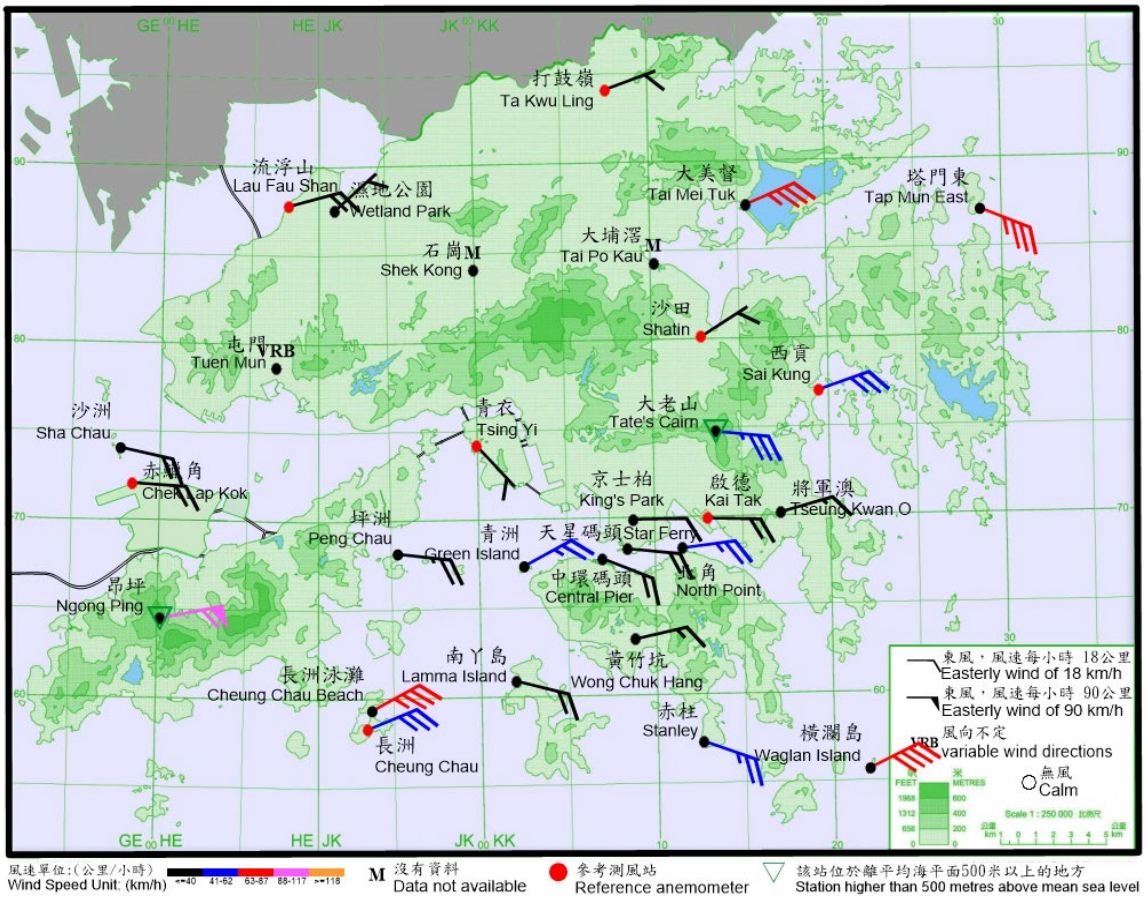

圖 3.3.4b　二零二四年九月五日晚上10時50分香港各站錄得的十分鐘平均風向和風速。當時長洲泳灘、大美督、塔門東及橫瀾島吹烈風，而昂坪的風力更達暴風程度。

Figure 3.3.4b　10-minute mean wind direction and speed recorded at various stations in Hong Kong at 10:50 p.m. on 5 September 2024. Winds at Cheung Chau Beach, Tai Mei Tuk, Tap Mun East and Waglan Island reached gale force, and winds at Ngong Ping even reached storm force at the time.

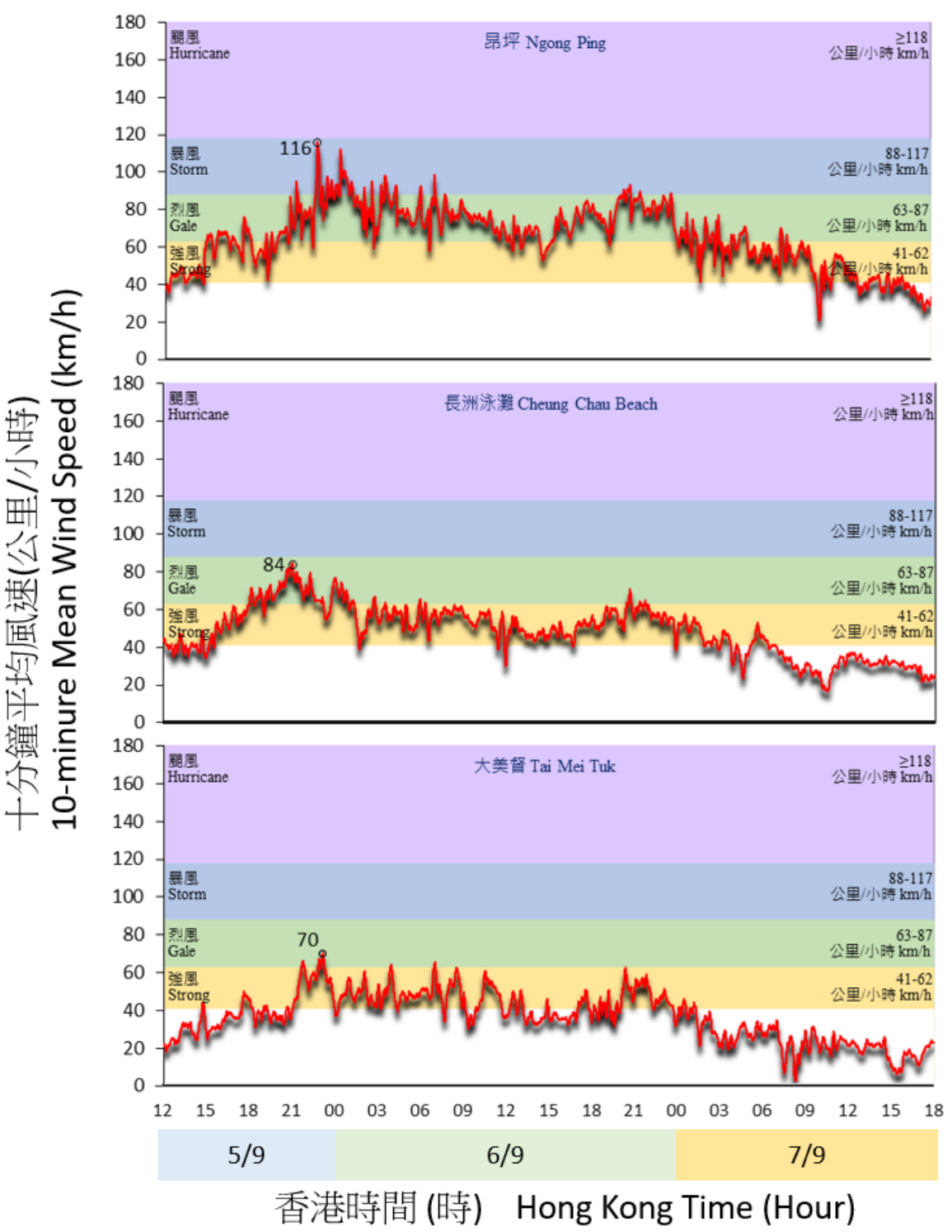

圖 3.3.5　二零二四年九月五日至七日昂坪、長洲泳灘及大美督錄得的十分鐘平均風速。

Figure 3.3.5　Traces of 10-minute mean wind speed recorded at Ngong Ping, Cheung Chau Beach and Tai Mei Tuk on 5 – 7 September 2024.

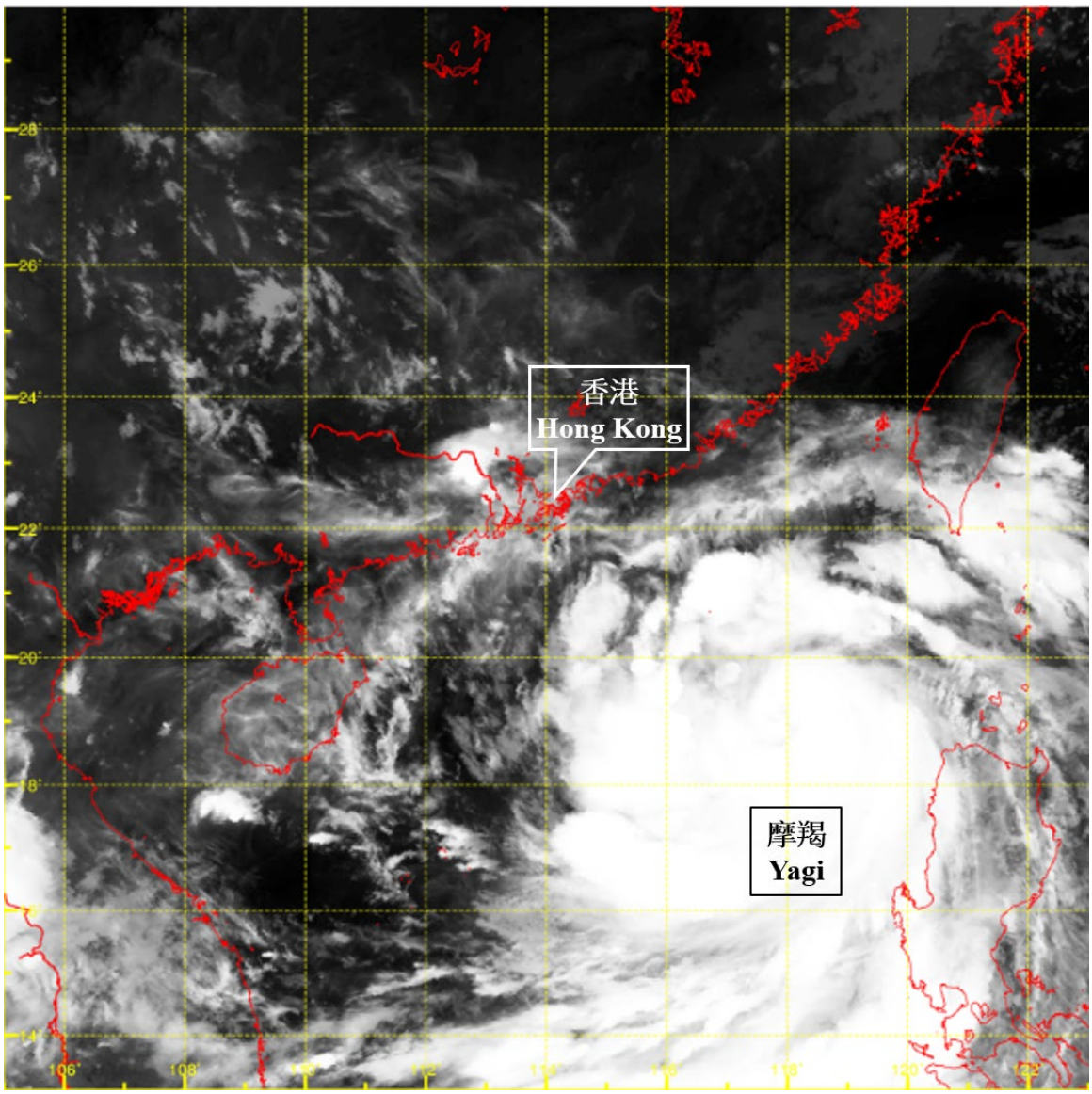

圖 3.3.6a　二零二四年九月四日上午5時左右的紅外線衛星圖片，當時摩羯中心附近最高持續風速估計為每小時110公里。

Figure 3.3.6a　Infrared satellite imagery at around 5 a.m. on 4 September 2024. The maximum sustained wind near the centre of Yagi was estimated to be 110 km/h at that time.

〔此衛星圖像接收自日本氣象廳的向日葵9號衛星。〕

[The satellite imagery was originally captured by Himawari-9 Satellite (H-9) of Japan Meteorological Agency (JMA).]

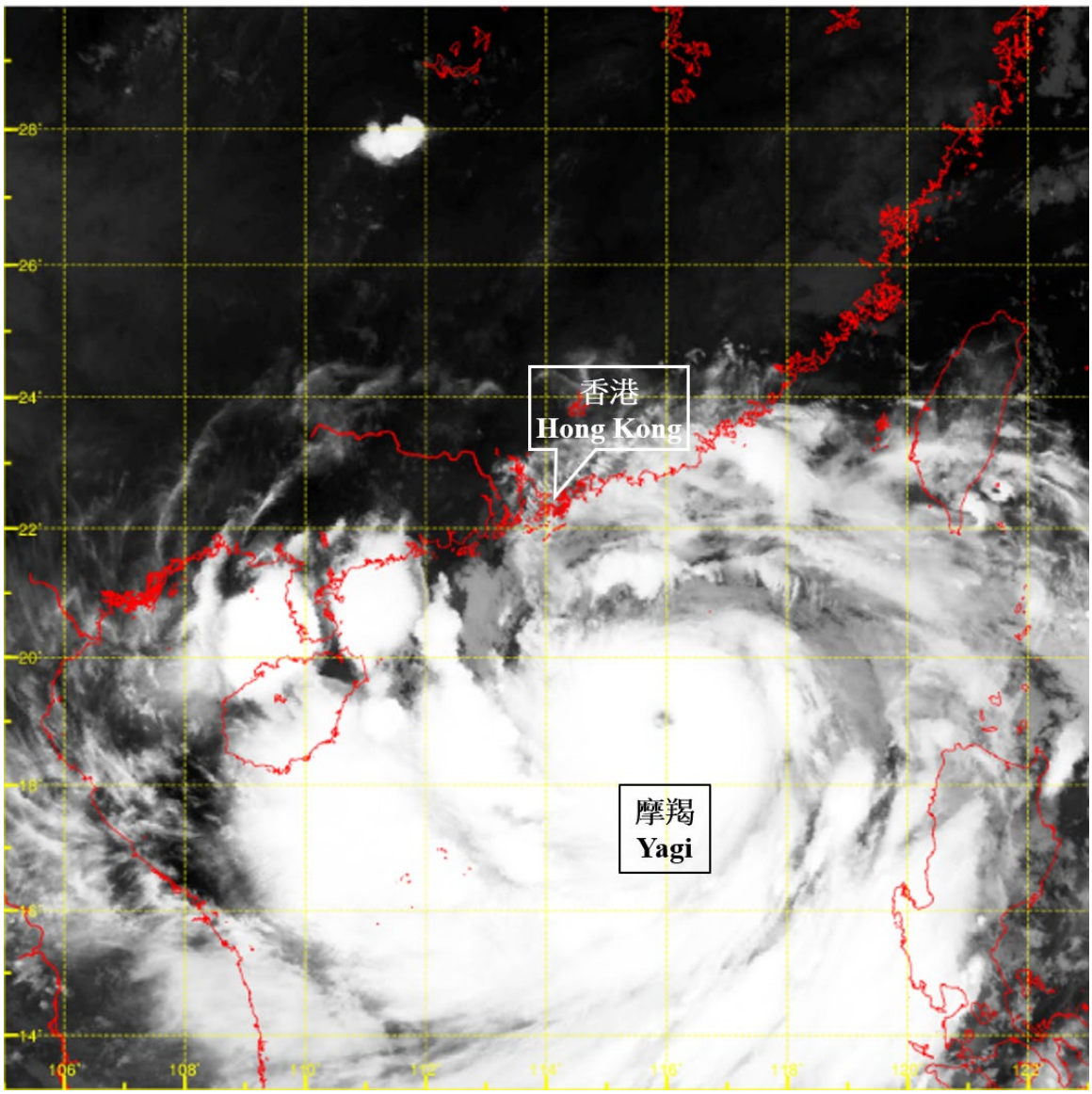

圖 3.3.6b　二零二四年九月五日上午5時左右的紅外線衛星圖片，當時摩羯中心附近最高持續風速估計為每小時205公里。

Figure 3.3.6b Infrared satellite imagery at around 5 a.m. on 5 September 2024. The maximum sustained wind near the centre of Yagi was estimated to be 205 km/h at that time.

〔此衛星圖像接收自日本氣象廳的向日葵9號衛星。〕

[The satellite imagery was originally captured by Himawari-9 Satellite (H-9) of Japan Meteorological Agency (JMA).]

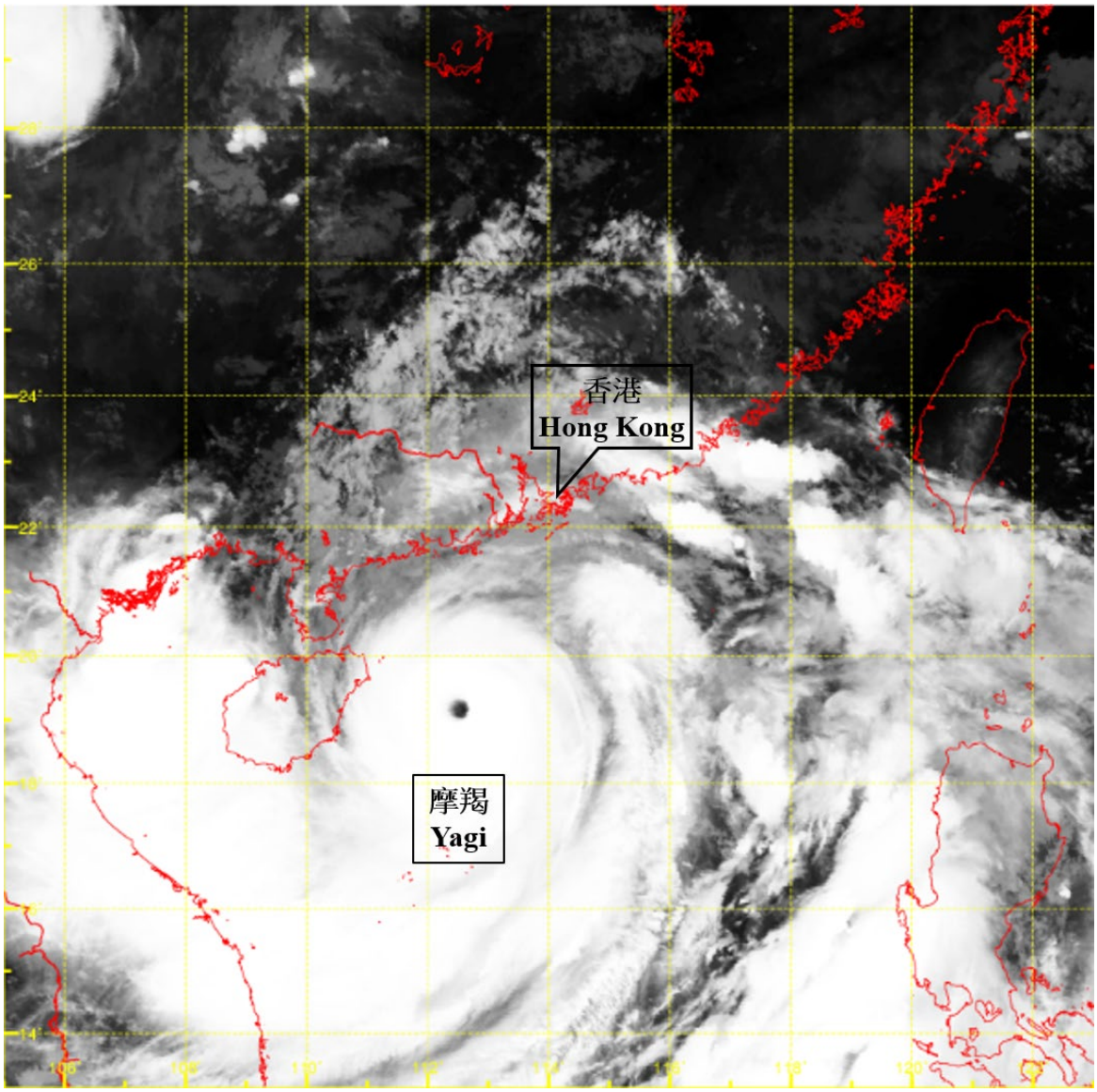

圖 3.3.6c　二零二四年九月六日上午5時左右的紅外線衛星圖片，當時摩羯達到其最高強度，中心附近最高持續風速估計為每小時230公里。

Figure 3.3.6c　Infrared satellite imagery at around 5 a.m. on 6 September 2024 when Yagi was at its peak intensity with an estimated maximum sustained wind of 230 km/h near its centre.

〔此衛星圖像接收自日本氣象廳的向日葵9號衛星。〕

[The satellite imagery was originally captured by Himawari-9 Satellite (H-9) of Japan Meteorological Agency (JMA).]

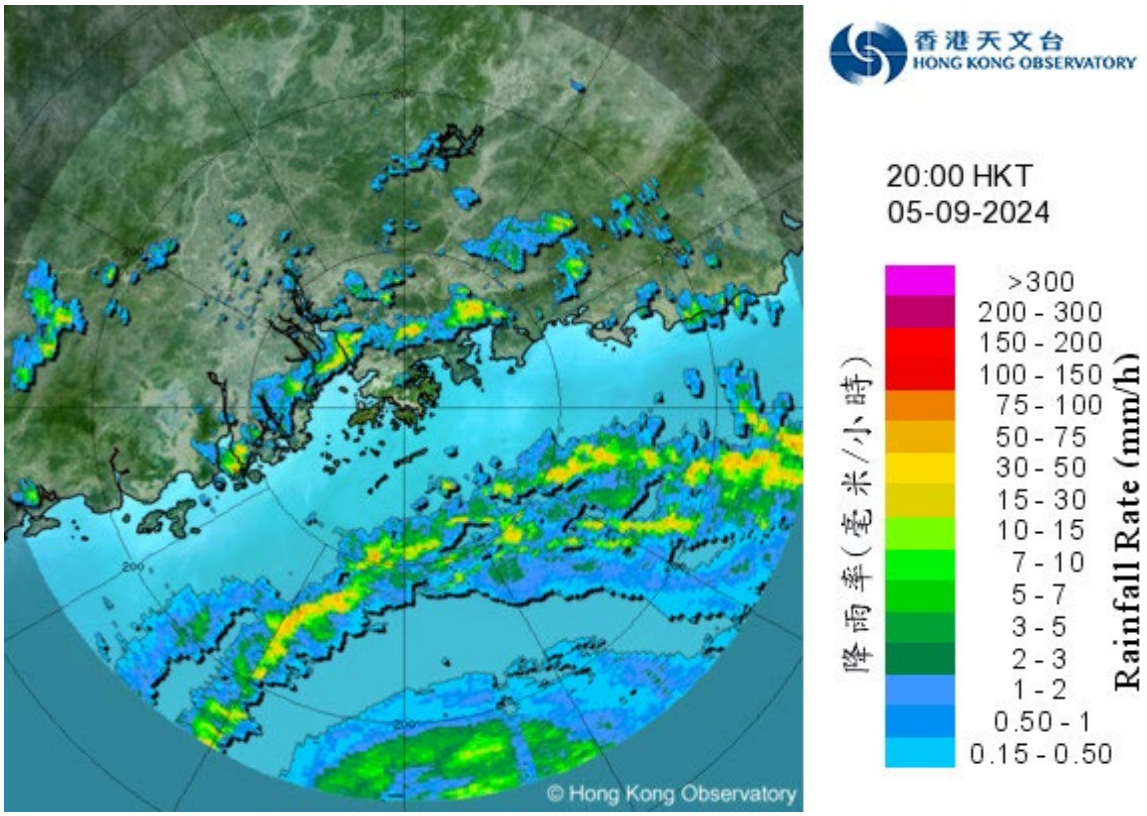

圖 3.3.7a　二零二四年九月五日晚上8時正的雷達回波圖像，當時摩羯最接近香港，在本港以南約330公里掠過。與摩羯相關的強雨帶正影響廣東沿岸。

Figure 3.3.7a　Radar echoes captured at 8:00 p.m. on 5 September 2024 when Yagi was closest to Hong Kong, skirting past about 330 km south of the territory. The intense rainbands associated with Yagi were affecting the coast of Guangdong.

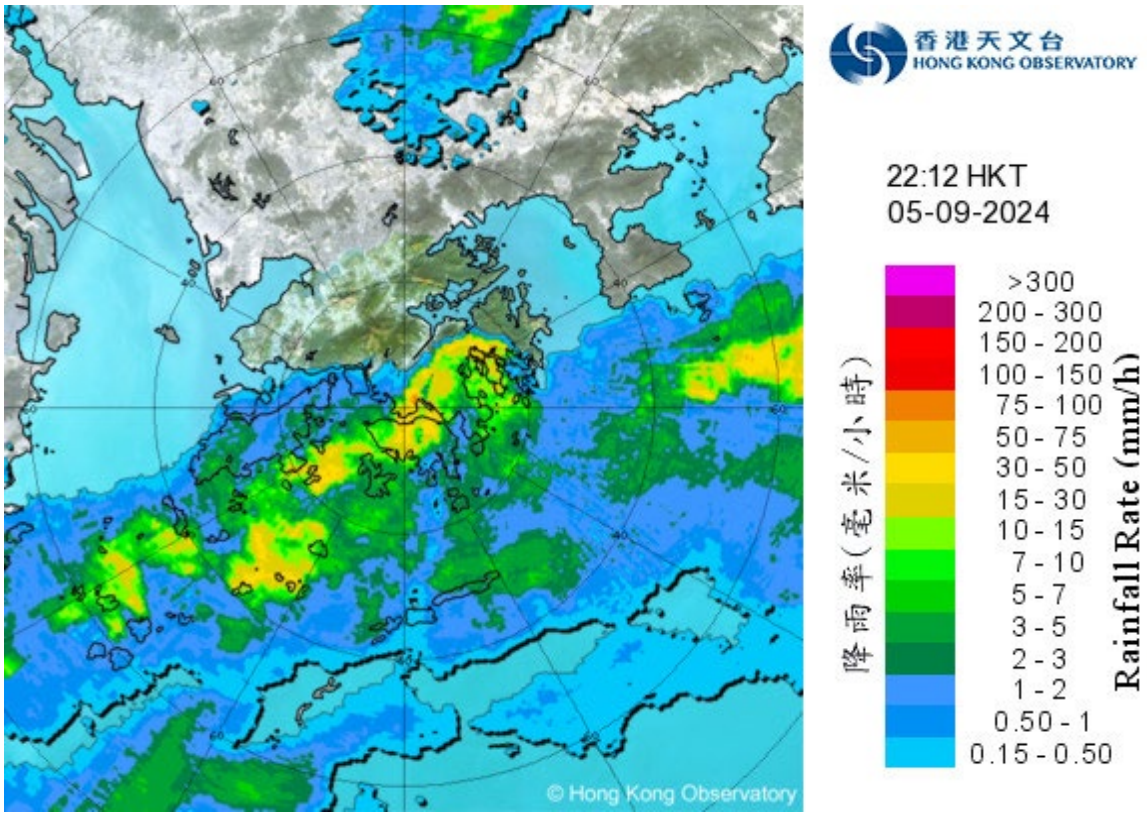

圖 3.3.7b　二零二四年九月五日晚上10時12分的雷達回波圖像，當時摩羯相關的強雨帶正影響香港，為維多利亞港內帶來猛烈陣風。

Figure 3.3.7b　Radar echoes captured at 10:12 p.m. on 5 September 2024. The intense rainbands associated with Yagi were affecting Hong Kong and bringing violent gusts to Victoria Harbour at that time.

圖 3.3.8　摩羯(2411)影響香港期間，天后興發街的一段英皇道有大樹倒塌 (鳴謝：有線新聞)。

Figure 3.3.8　A large tree fell at a section of King's Road near Hing Fat Street, Tin Hau during the passage of Yagi (2411). (Courtesy of i-CABLE News).

3.4 颱風潭美(2420)：二零二四年十月二十一日至二十八日

潭美是二零二四年第四個影響香港的熱帶氣旋。

熱帶低氣壓潭美於十月二十一日凌晨在馬尼拉以東約1 370公里的北太平洋西部上形成，向西移向菲律賓以東海域，並逐漸增強。翌日凌晨潭美增強為熱帶風暴，隨後轉向西北偏西或西北移向呂宋。潭美於十月二十四日橫過呂宋，並在下午進入南海中部。隨後兩日潭美採取偏西路徑，橫過南海中部。潭美於十月二十六日早上增強為颱風，並達到其最高強度，中心附近最高持續風速估計為每小時120公里。受南海中部較強的垂直風切變影響，其後潭美逐漸減弱。潭美於翌日早上轉向西南偏南移動，並在中午前後在越南中部登陸。由於引導氣流較弱，潭美隨後在沿岸地區徘徊，最後於十月二十八日早上減弱為低壓區。

根據報章報導，潭美為菲律賓帶來狂風暴雨，引致山洪暴發，造成多人傷亡及重大經濟損失。受潭美及其殘餘影響，海南於十月二十六日至三十一日出現大暴雨，期間琼海市錄得最大累積降雨量1243.1 毫米，暴雨引發水浸及山泥傾瀉，造成十人死亡，超過55萬人受災，經濟損失約2.3億元人民幣。潭美亦為越南帶來暴雨，造成至少三人死亡，一人失蹤，超過290間房屋受損。

天文台在十月二十五日上午1時40分發出一號戒備信號，當時潭美集結在香港之東南約800公里。當日本港吹和緩至清勁北風，離岸及高地間中吹強風。潭美於十月二十六日上午2時左右最接近香港，在本港以南約550公里掠過。隨著潭美繼續向西移動，本港逐漸轉吹偏東風，原先受屏蔽的地區變得當風，加上在潭美與東北季候風的共同影響，預料珠江口一帶會吹強風，天文台在十月二十六日上午10時40分改發三號強風信號，當時潭美位於香港之西南偏南約600公里。當日日間本港多處地區吹強風程度的東至東北風，高地間中吹烈風。隨著潭美繼續遠離香港並減弱，當晚本地風力逐漸緩和，天文台在十月二十六日晚上10時20分改發一號戒備信號，並於十月二十七日凌晨12時20分取消所有熱帶氣旋警告信號。

潭美吹襲香港期間，沒有嚴重破壞報告。在潭美的影響下，大埔滘錄得最高潮位(海圖基準面以上) 2.86米及最大風暴潮(天文潮高度以上) 0.72米。天文台總部於十月二十五日下午3時17分錄得最低瞬時海平面氣壓1004.2百帕斯卡。

十月二十五日日間本港大致天晴，但隨著潭美靠近，晚上轉為多雲。受潭美外圍雨帶影響，十月二十六日本港大致多雲及有幾陣驟雨。

3.4 Typhoon Trami (2420): 21 to 28 October 2024

Trami was the fourth tropical cyclone affecting Hong Kong in 2024.

Trami formed as a tropical depression over the WNP about 1 370 km east of Manila in the small hours of 21 October, moved westwards towards the seas east of the Philippines, and intensified gradually. It intensified into a tropical storm in the small hours of the next day and then turned to move west-northwestwards or northwestwards towards Luzon. Trami moved across Luzon on 24 October and entered the central part of the SCS that afternoon. Trami adopted a westerly track across the central part of the SCS in the following two days. Trami intensified into a typhoon on the morning of 26 October and attained its peak intensity with an estimated maximum sustained wind of 120 km/h near its centre. Under the influence of the relatively high vertical wind shear over the central part of the SCS, Trami weakened gradually afterwards. It turned to track south-southwestwards the next morning and made landfall over the central part of Vietnam around noon. Under a relatively weak steering flow, Trami then lingered over the coastal areas and finally degenerated into an area of low pressure on the morning of 28 October.

According to press reports, Trami brought torrential rain and squalls to the Philippines, leading to flash floods and landslides, resulting in many casualties and significant economic loss. Under the influence of Trami and its remnant, torrential rain occurred in Hainan on 26 – 31 October, with a maximum cumulative rainfall of 1243.1 millimetres recorded in Qionghai during the period. Flooding and landslides triggered by torrential rain led to ten deaths, more than 550 000 people affected and an economic loss of about RMB 230 million. Trami also brought very heavy rain to Vietnam, causing at least three deaths, one missing and more than 290 houses damaged.

The Standby Signal No. 1 was issued at 1:40 a.m. on 25 October, when Trami was about 800 km southeast of Hong Kong. Local winds were moderate to fresh northerlies, occasionally strong offshore and on high ground that day. Trami came closest to Hong Kong at around 2 a.m. on 26 October, skirting past about 550 km south of the territory. As Trami continued to move westwards, winds over Hong Kong veered to the east gradually and some places which had been sheltered before became exposed. In addition, under the combined effect of Trami and the northeast monsoon, strong winds were expected to affect the vicinity of the Pearl River Estuary. Thus, the No. 3 Strong Wind Signal was issued at 10:40 a.m. on 26 October when Trami was about 600 km south-southwest of Hong Kong. Locally, strong east to northeasterlies prevailed over many places during the day that day, with gale force winds occasionally affecting high ground. As Trami continued to depart from Hong Kong and weaken, local winds moderated gradually that night. The No. 3 Strong Wind Signal was replaced by the Standby Signal No. 1 at 10:20 p.m. on 26 October and all tropical cyclone warning signals were cancelled at 12:20 a.m. on 27 October.

Trami did not cause any significant damage in Hong Kong during its passage. Under the influence of Trami, a maximum sea level of 2.86 m (above chart datum) and a maximum storm surge of 0.72 m (above astronomical tide) were recorded at Tai Po Kau. At the Observatory Headquarters, the lowest instantaneous mean sea-level pressure of 1004.2 hPa was recorded at 3:17 p.m. on 25 October.

While it was mainly fine in Hong Kong during the day on 25 October, the weather turned cloudy at night with the approach of Trami. Affected by the outer rainbands of Trami, the weather of Hong Kong was mainly cloudy with a few showers on 26 October.

表 3.4.1　在潭美影響下，本港各站在熱帶氣旋警告信號生效時所錄得的最高陣風、最高每小時平均風速及風向

Table 3.4.1　Maximum gust peak speeds and maximum hourly mean winds with associated wind directions recorded at various stations when the tropical cyclone warning signals for Trami were in force

站(參閱圖 1.1) Station (See Fig. 1.1)		最高陣風 Maximum Gust					最高每小時平均風速 Maximum Hourly Mean 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
黃麻角(赤柱)	Bluff Head (Stanley)	東	E	57	26/10	14:36	東南偏東	ESE	23	26/10	16:00
中環碼頭	Central Pier	東南	SE	46	26/10	11:56	東南偏東	ESE	23	26/10	13:00
長洲	Cheung Chau	北	N	67	25/10	06:29	北	N	39	26/10	03:00
長洲泳灘	Cheung Chau Beach	東北偏北	NNE	58	25/10	19:27	東北	NE	41	26/10	13:00
青洲	Green Island	北	N	58	25/10	16:11	東北偏北	NNE	44	26/10	11:00
		東北偏北	NNE	58	26/10	09:56					
香港國際機場	Hong Kong International Airport	東北偏北	NNE	43	25/10	18:11	東北偏北	NNE	31	25/10	07:00
啟德	Kai Tak	東北	NE	44	26/10	11:59	東北	NE	16	26/10	11:00
							東北	NE	16	26/10	12:00
京士柏	King's Park	東北偏北	NNE	48	26/10	05:47	東北偏北	NNE	20	26/10	03:00
南丫島	Lamma Island	東北偏北	NNE	47	25/10	20:39	西北偏北	NNW	35	25/10	05:00
流浮山	Lau Fau Shan	東北偏北	NNE	45	26/10	00:43	北	N	32	25/10	17:00
昂坪	Ngong Ping	東北偏東	ENE	72	26/10	22:52	東北偏東	ENE	48	27/10	00:00
北角	North Point	東北	NE	39	26/10	07:14	東北偏東	ENE	23	26/10	08:00
							東北偏東	ENE	23	26/10	09:00
坪洲	Peng Chau	東北偏北	NNE	58	25/10	11:16	北	N	35	25/10	12:00
							東北偏北	NNE	35	25/10	16:00
平洲	Ping Chau	北	N	35	25/10	11:38	北	N	9	25/10	10:00
西貢	Sai Kung	東北偏北	NNE	54	25/10	09:44	東北偏北	NNE	35	25/10	09:00
沙洲	Sha Chau	北	N	57	25/10	03:16	北	N	46	25/10	04:00
沙田	Sha Tin	東北	NE	40	25/10	14:42	東北	NE	17	26/10	08:00
							東北偏北	NNE	17	26/10	09:00
石崗	Shek Kong	東北	NE	40	25/10	21:42	東北偏北	NNE	22	25/10	15:00
九龍天星碼頭	Star Ferry (Kowloon)	東	E	36	26/10	12:15	東	E	20	26/10	13:00
打鼓嶺	Ta Kwu Ling	東北偏北	NNE	53	26/10	00:48	東北偏北	NNE	23	26/10	01:00
大美督	Tai Mei Tuk	東北	NE	57	26/10	09:44	東北	NE	37	26/10	10:00
							東北	NE	37	26/10	11:00
大帽山	Tai Mo Shan	東北偏東	ENE	87	26/10	07:03	東北	NE	66	26/10	01:00
大埔滘	Tai Po Kau	北	N	40	25/10	16:51	東南偏東	ESE	22	26/10	11:00
							東南偏東	ESE	22	26/10	12:00
塔門東	Tap Mun East	北	N	55	25/10	16:10	北	N	27	25/10	06:00
							北	N	27	25/10	11:00
							北	N	27	25/10	17:00
大老山	Tate's Cairn	東北偏東	ENE	87	26/10	08:57	東北	NE	59	26/10	09:00
將軍澳	Tseung Kwan O	東北	NE	48	26/10	00:39	東北偏東	ENE	15	25/10	13:00
							東北偏東	ENE	15	25/10	15:00
青衣島蜆殼油庫	Tsing Yi Shell Oil Depot	西北偏北	NNW	50	25/10	19:13	西北偏北	NNW	20	25/10	14:00
屯門政府合署	Tuen Mun Government Offices	北	N	53	25/10	19:52	東北偏北	NNE	21	25/10	20:00
橫瀾島	Waglan Island	東北	NE	59	26/10	12:47	東北	NE	49	26/10	12:00
濕地公園	Wetland Park	東北	NE	32	26/10	03:05	東北	NE	9	26/10	13:00
黃竹坑	Wong Chuk Hang	東北偏東	ENE	58	26/10	12:10	東北偏東	ENE	23	26/10	13:00

沙螺灣 - 沒有資料　Sha Lo Wan - data not available

表 3.4.2　在潭美影響下，熱帶氣旋警告系統的八個參考測風站在熱帶氣旋警告信號生效時錄得持續風力達到強風程度的時段

Table 3.4.2　Periods during which sustained strong winds were attained at the eight reference anemometers in the tropical cyclone warning system when tropical cyclone warning signals for Trami were in force

站 (參閱圖 1.1) Station (See Fig. 1.1)		最初達到強風*時間 Start time when strong wind speed* was attained		最後達到強風*時間 End time when strong wind speed* was attained	
		日期/月份 Date/Month	時間 Time	日期/月份 Date/Month	時間 Time
長洲	Cheung Chau	25/10	06:30	26/10	02:48

香港國際機場、啟德、流浮山、西貢、沙田、打鼓嶺及青衣島蜆殼油庫的持續風力未達到強風程度。

The sustained wind speed did not attain strong force at Hong Kong International Airport, Kai Tak, Lau Fau Shan, Sai Kung, Sha Tin, Ta Kwu Ling and Tsing Yi Shell Oil Depot.

* 十分鐘平均風速達每小時 41 - 62 公里

* 10-minute mean wind speed of 41 - 62 km/h

註:　本表列出持續風力達到強風程度的起始及終結時間。期間風力可能高於或低於指定的風力。

Note:　The table gives the start and end time of sustained strong winds. Winds might fluctuate above or below the specified wind speeds in between the times indicated.

表 3.4.3　　潭美影響香港期間，香港天文台總部及其他各站所錄得的日雨量
Table 3.4.3　Daily rainfall amounts recorded at the Hong Kong Observatory Headquarters and other stations during the passage of Trami

站 Station			十月二十五日 25 Oct	十月二十六日 26 Oct	十月二十七日 27 Oct	總雨量(毫米) Total rainfall (mm)
香港天文台 Hong Kong Observatory (HKO)			0.0	0.7	微量 Trace	0.7
香港國際機場 Hong Kong International Airport (HKA)			0.0	0.9	微量 Trace	0.9
長洲 Cheung Chau (CCH)			0.0	0.0	0.0	0.0
H23	香港仔	Aberdeen	0.0	0.5	0.0	0.5
N05	粉嶺	Fanling	0.0	0.0	0.0	0.0
N13	糧船灣	High Island	0.0	1.5	0.0	1.5
K04	佐敦谷	Jordan Valley	0.0	1.0	0.0	1.0
N06	葵涌	Kwai Chung	0.0	1.0	0.0	1.0
H12	半山區	Mid Levels	0.0	2.0	0.5	2.5
N09	沙田	Sha Tin	0.0	0.0	0.0	0.0
H19	筲箕灣	Shau Kei Wan	0.0	2.5	0.0	2.5
SEK	石崗	Shek Kong	0.0	0.0	0.5	0.5
K06	蘇屋邨	So Uk Estate	0.0	0.5	0.0	0.5
R31	大美督	Tai Mei Tuk	0.0	0.0	0.0	0.0
R21	踏石角	Tap Shek Kok	0.0	0.0	0.0	0.0
N17	東涌	Tung Chung	0.0	1.0	0.5	1.5
TMR	屯門水庫	Tuen Mun Reservoir	0.0	0.0	0.0	0.0

表 3.4.4　　潭美影響香港期間，香港各潮汐站所錄得的最高潮位及最大風暴潮
Table 3.4.4　Times and heights of the maximum sea level and the maximum storm surge recorded at tide stations in Hong Kong during the passage of Trami

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
鰂魚涌	Quarry Bay	2.79	25/10	03:24	0.60	25/10	16:23
石壁	Shek Pik	2.77	25/10	03:07	0.61	25/10	15:52
大廟灣	Tai Miu Wan	2.74	25/10	02:26	0.65	25/10	16:28
大埔滘	Tai Po Kau	2.86	25/10	02:15	0.72	25/10	15:01
尖鼻咀	Tsim Bei Tsui	2.81	25/10	04:47	0.63	25/10	05:05
橫瀾島	Waglan Island	2.73	25/10	02:15	0.46	25/10	15:15

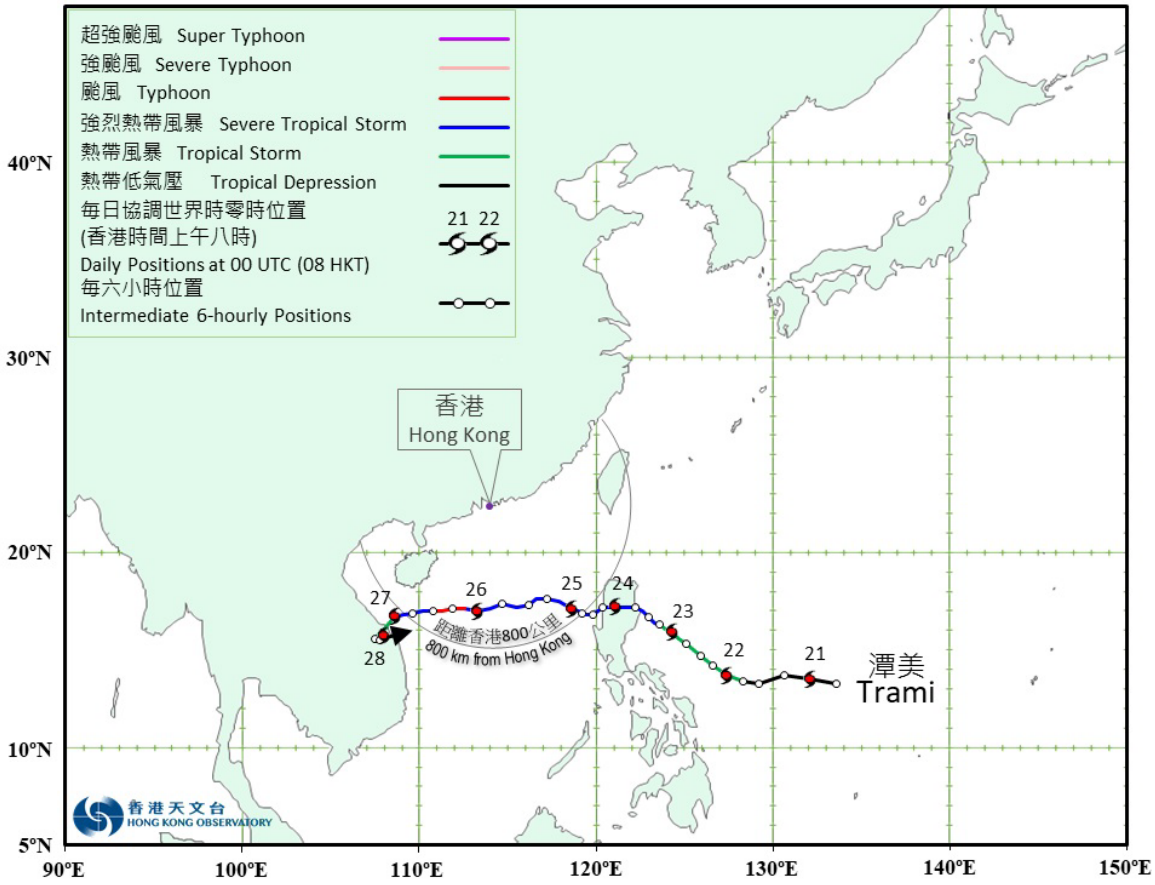

圖 3.4.1　　二零二四年十月二十一日至二十八日潭美(2420)的路徑圖。

Figure 3.4.1　Track of Trami (2420): 21 – 28 October 2024.

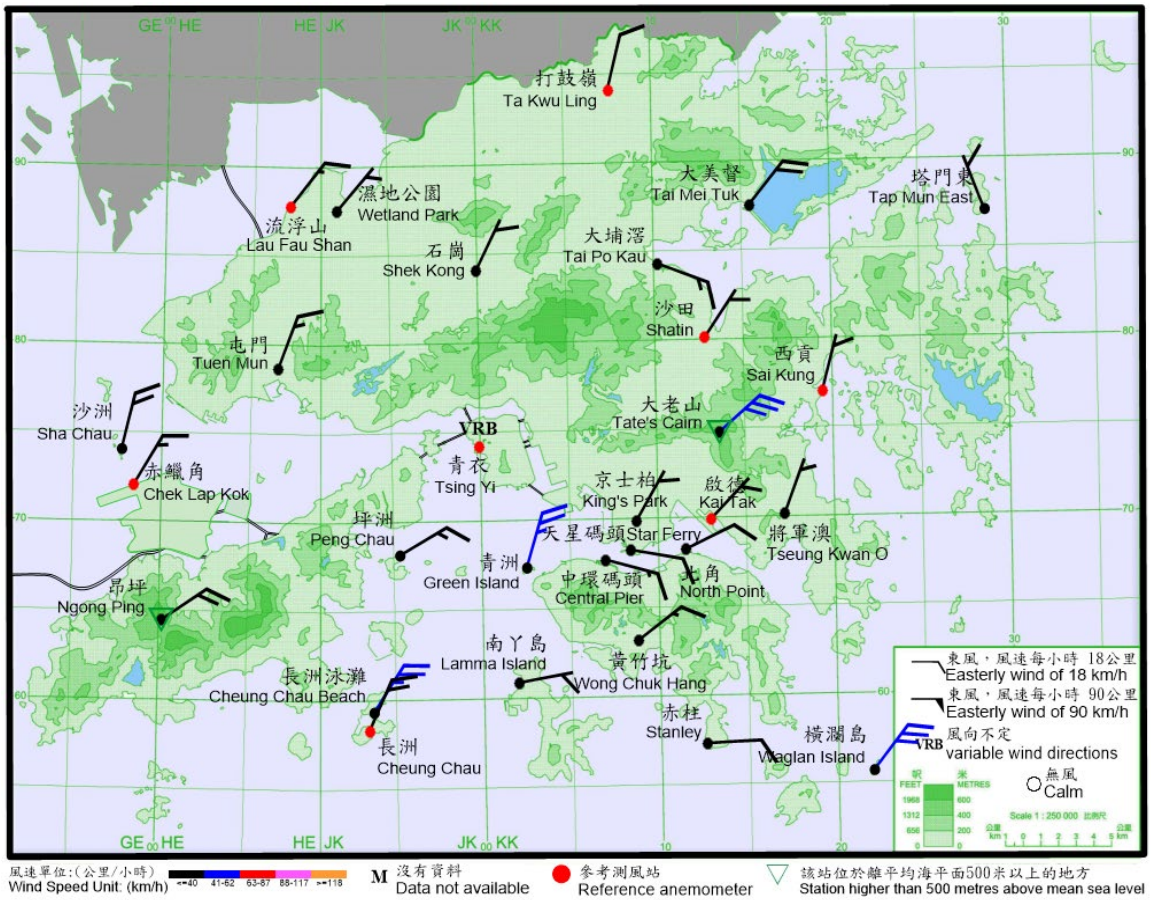

圖 3.4.2　二零二四年十月二十六日上午11時40分香港各站錄得的十分鐘平均風向和風速。當時長洲泳灘、青洲、橫瀾島及大老山的風力達到強風程度。

Figure 3.4.2　10-minute mean wind direction and speed recorded at various stations in Hong Kong at 11:40 a.m. on 26 October 2024. Winds at Cheung Chau Beach, Green Island, Waglan Island and Tate's Cairn reached strong force at that time.

註：　青衣當時錄得的十分鐘平均風速為每小時8公里。

Note:　The 10-minute mean wind speed recorded at the time at Tsing Yi was 8 km/h.

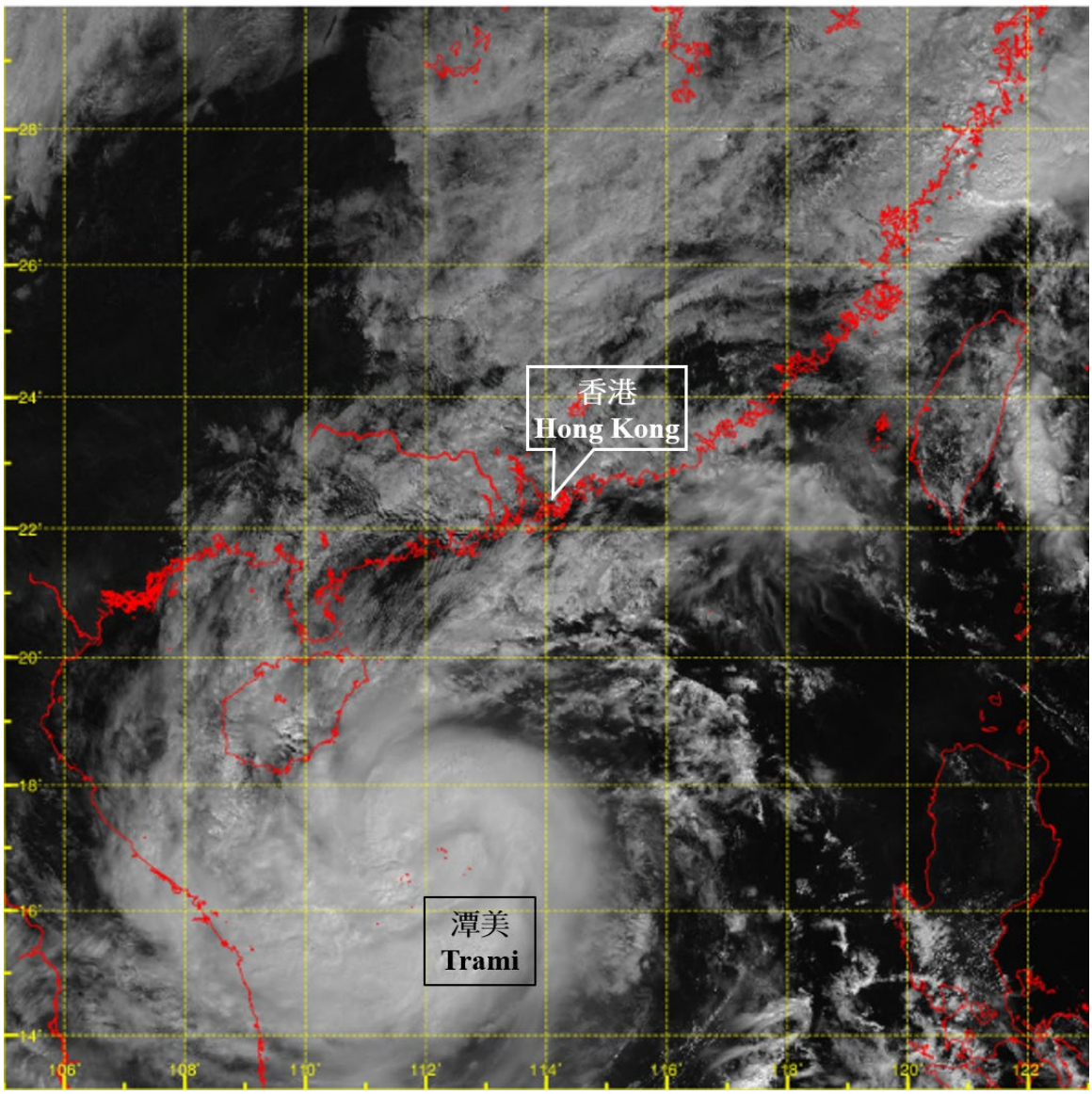

圖 3.4.3　二零二四年十月二十六日上午11時左右的可見光衛星圖片，當時潭美達到其最高強度，中心附近最高持續風速估計為每小時120公里。

Figure 3.4.3　Visible satellite imagery at around 11 a.m. on 26 October 2024 when Trami was at its peak intensity with an estimated maximum sustained wind of 120 km/h near its centre.

〔此衛星圖像接收自日本氣象廳的向日葵9號衛星。〕

[The satellite imagery was originally captured by Himawari-9 Satellite (H-9) of Japan Meteorological Agency (JMA).]

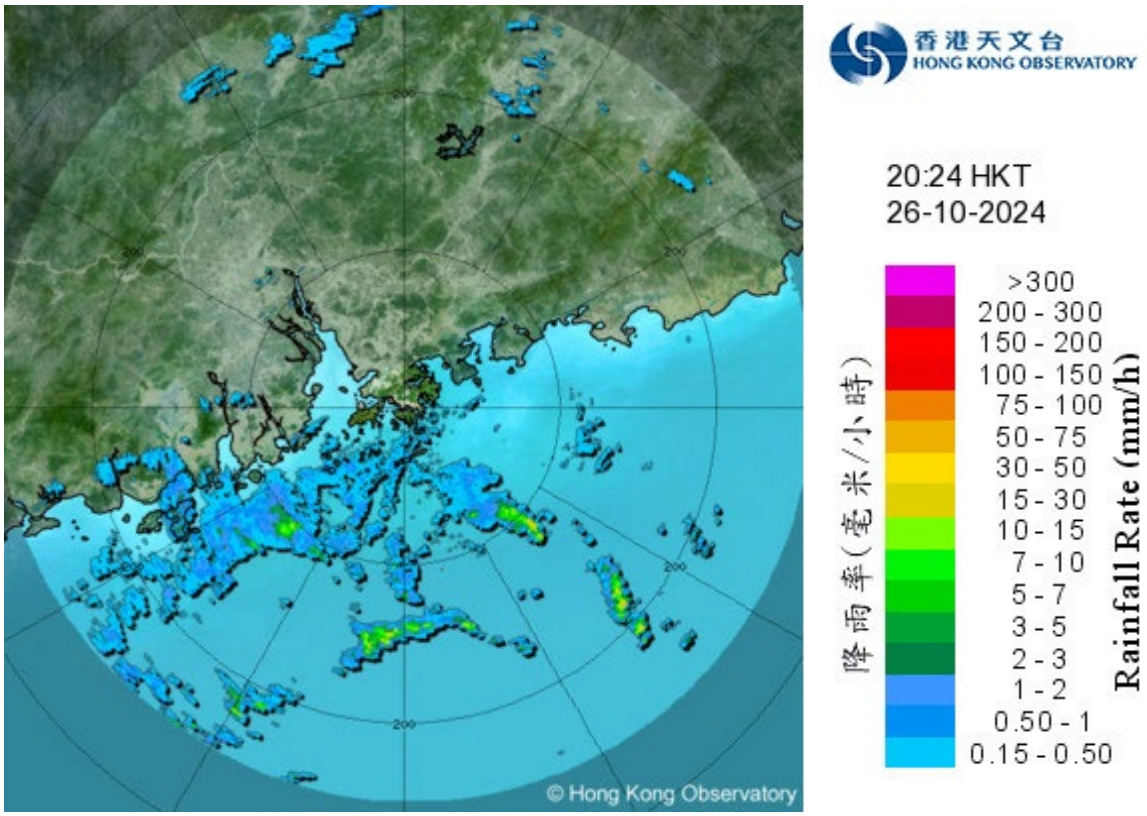

圖 3.4.4　二零二四年十月二十六日晚上8時24分的雷達回波圖像。與潭美相關的外圍雨帶正影響廣東沿岸，而較強的雨區及狂風主要影響本港以南海域。

Figure 3.4.4　Radar echoes captured at 8:24 p.m. on 26 October 2024. The outer rainbands associated with Trami were affecting the coast of Guangdong, while more intense squally showers mainly affected the seas south of Hong Kong.

3.5 超強颱風銀杏(2422)：二零二四年十一月三日至十二日

銀杏是二零二四年第五個影響香港的熱帶氣旋。

熱帶低氣壓銀杏於十一月三日早上在雅蒲島之東南約110公里的北太平洋西部上形成，隨後兩天向西北偏西或西北移向呂宋，並逐步增強為颱風。銀杏於十一月六日逐漸轉向西移動，並於當晚進一步增強為超強颱風。翌日下午銀杏達到其最高強度，中心附近最高持續風速估計為每小時220公里。隨後銀杏掠過呂宋北端，並於十一月八日凌晨稍為減弱為強颱風。銀杏於十一月九日大致向西橫過南海北部，並再次增強為超強颱風。銀杏於隨後兩天在海南島東南對出海域轉向西南移動，並迅速減弱。最後，銀杏於十一月十二日在越南中部沿岸海域減弱為低壓區。

根據報章報導，銀杏吹襲菲律賓北部期間，共造成一人死亡，一人失蹤，一人受傷，超過38萬人受災，超過28 000間房屋受損，經濟損失超過1.92億菲律賓比索。

天文台在十一月八日下午12時40分發出一號戒備信號，當時銀杏集結在香港之東南約600公里。當日下午及翌日早上本港吹和緩至清勁北至東北風，離岸及高地間中吹強風。隨著銀杏繼續向西移動，靠近廣東沿岸，受銀杏及東北季候風的共同影響，本港風勢逐漸增強，天文台在十一月九日下午3時40分改發三號強風信號，當時銀杏位於香港以南約370公里。銀杏於十一月九日晚上8時左右最接近香港，在本港以南約360公里掠過。當晚及翌日早上本港多處地區吹強風程度的東至東北風，離岸及高地間中吹烈風。隨著銀杏遠離香港並減弱，當日日間本地風力逐漸緩和，天文台在十一月十日上午10時20分改發一號戒備信號，並在當日下午3時20分取消所有熱帶氣旋警告信號。

銀杏吹襲香港期間，沒有嚴重破壞報告。在銀杏的影響下，尖鼻咀錄得最高潮位(海圖基準面以上) 2.77米，而大埔滘錄得最大風暴潮(天文潮高度以上) 0.60米。天文台總部於十一月九日下午2時49分錄得最低瞬時海平面氣壓1012.3百帕斯卡。

十一月八日日間本港天晴乾燥，但隨著銀杏靠近，晚上轉為多雲及局部地區有驟雨。受東北季候風及銀杏的共同影響，十一月九日至十日本港大致多雲及有幾陣驟雨。

3.5 Super Typhoon Yinxing (2422): 3 to 12 November 2024

Yinxing was the fifth tropical cyclone affecting Hong Kong in 2024.

Yinxing formed as a tropical depression over the WNP about 110 km southeast of Yap on the morning of 3 November. It moved west-northwestwards or northwestwards towards Luzon and intensified progressively into a typhoon in the following two days. It turned gradually to move westwards on 6 November and further intensified into a super typhoon that night. Yinxing attained its peak intensity the next afternoon with an estimated maximum sustained wind of 220 km/h near its centre. It then moved across the northern tip of Luzon and weakened slightly into a severe typhoon in the small hours of 8 November. Yinxing tracked generally westwards across the northern part of the SCS and intensified again into a super typhoon on 9 November. It turned to move southwestwards over the seas southeast of Hainan Island and weakened rapidly in the following two days. Yinxing finally weakened into an area of low pressure over the coastal waters of central Vietnam on 12 November.

According to press reports, Yinxing caused one death, one missing and one injury during its passage over the northern part of the Philippines. More than 380 000 people were affected, over 28 000 houses were damaged and economic loss exceeded PHP 192 million.

The Standby Signal No. 1 was issued at 12:40 p.m. on 8 November, when Yinxing was about 600 km southeast of Hong Kong. Local winds were moderate to fresh north to northeasterlies, occasionally strong offshore and on high ground that afternoon and the next morning. As Yinxing continued to move westwards and edged closer to the coast of Guangdong, local winds strengthened gradually under the combined effect of Yinxing and the northeast monsoon. The No. 3 Strong Wind Signal was issued at 3:40 p.m. on 9 November when Yinxing was about 370 km south of Hong Kong. Yinxing came closest to Hong Kong at around 8 p.m. on 9 November, skirting past about 360 km south of the territory. Locally, strong east to northeasterlies prevailed over many places that night and the next morning, with gale force winds occasionally affecting offshore and high ground. With Yinxing departing from Hong Kong and weakening, local winds moderated gradually during the day that day. The No. 3 Strong Wind Signal was replaced by the Standby Signal No. 1 at 10:20 a.m. on 10 November and all tropical cyclone warning signals were cancelled at 3:20 p.m. that day.

Yinxing did not cause any significant damage in Hong Kong during its passage. Under the influence of Yinxing, a maximum sea level (above chart datum) of 2.77 m was recorded at Tsim Bei Tsui and a maximum storm surge (above astronomical tide) of 0.60 m was recorded at Tai Po Kau. At the Observatory Headquarters, the lowest instantaneous mean sea-level pressure of 1012.3 hPa was recorded at 2:49 p.m. on 9 November.

While the weather of Hong Kong was fine and dry during the day on 8 November, it turned cloudy with isolated showers at night with the approach of Yinxing. Under the combined effect of the northeast monsoon and Yinxing, the weather of Hong Kong was mainly cloudy with a few showers on 9 – 10 November.

表 3.5.1　在銀杏影響下，本港各站在熱帶氣旋警告信號生效時所錄得的最高陣風、最高每小時平均風速及風向

Table 3.5.1　Maximum gust peak speeds and maximum hourly mean winds with associated wind directions recorded at various stations when the tropical cyclone warning signals for Yinxing were in force

站 (參閱圖 1.1) Station (See Fig. 1.1)		最高陣風 Maximum Gust					最高每小時平均風速 Maximum Hourly Mean 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
黃麻角(赤柱)	Bluff Head (Stanley)	東南偏東	ESE	69	10/11	01:47	東南偏東	ESE	30	9/11	23:00
							東南偏東	ESE	30	10/11	00:00
							東南偏東	ESE	30	10/11	01:00
中環碼頭	Central Pier	東南偏東	ESE	62	9/11	22:41	東南偏東	ESE	33	9/11	23:00
長洲	Cheung Chau	東北偏東	ENE	63	10/11	01:46	東北偏東	ENE	40	10/11	02:00
長洲泳灘	Cheung Chau Beach	東北	NE	66	10/11	01:34	東北偏東	ENE	51	10/11	02:00
青洲	Green Island	東北偏東	ENE	84	10/11	00:30	東北偏東	ENE	60	10/11	01:00
香港國際機場	Hong Kong International Airport	東北偏東	ENE	41	10/11	03:08	東	E	25	10/11	04:00
啟德	Kai Tak	東南偏東	ESE	57	9/11	22:43	東南偏東	ESE	26	9/11	23:00
		東	E	57	9/11	23:03					
京士柏	King's Park	東	E	50	10/11	02:31	東	E	18	9/11	15:00
南丫島	Lamma Island	東	E	54	10/11	00:34	東	E	24	10/11	01:00
流浮山	Lau Fau Shan	東	E	37	10/11	02:53	東	E	21	10/11	03:00
昂坪	Ngong Ping	東北偏東	ENE	102	10/11	00:40	東	E	66	10/11	01:00
北角	North Point	東	E	64	9/11	23:02	東	E	35	9/11	23:00
							東	E	35	10/11	02:00
坪洲	Peng Chau	東	E	59	10/11	00:30	東	E	41	10/11	01:00
平洲	Ping Chau	東北偏東	ENE	26	10/11	02:50	東北偏東	ENE	9	10/11	03:00
西貢	Sai Kung	東	E	45	9/11	21:35	東	E	28	9/11	22:00
沙洲	Sha Chau	北	N	35	9/11	10:16	北	N	26	9/11	10:00
沙田	Sha Tin	東北偏東	ENE	34	10/11	00:39	東	E	14	9/11	23:00
		東北偏東	ENE	34	10/11	00:59					
石崗	Shek Kong	東北	NE	47	10/11	03:06	東北	NE	23	10/11	03:00
九龍天星碼頭	Star Ferry (Kowloon)	東	E	54	9/11	21:58	東	E	30	9/11	23:00
打鼓嶺	Ta Kwu Ling	北	N	28	8/11	12:45	北	N	13	8/11	13:00
大美督	Tai Mei Tuk	東北偏東	ENE	48	10/11	02:41	東北偏東	ENE	33	10/11	03:00
大帽山	Tai Mo Shan	東	E	74	10/11	03:41	東	E	51	10/11	03:00
大埔滘	Tai Po Kau	東	E	32	10/11	02:19	東南偏東	ESE	22	10/11	00:00
		東	E	32	10/11	03:08					
		東	E	32	10/11	03:09					
塔門東	Tap Mun East	東南偏東	ESE	45	9/11	22:06	東南偏東	ESE	32	9/11	22:00
大老山	Tate's Cairn	東	E	78	9/11	22:20	東	E	47	9/11	23:00
將軍澳	Tseung Kwan O	東北偏北	NNE	44	9/11	23:08	東北	NE	14	9/11	14:00
青衣島蜆殼油庫	Tsing Yi Shell Oil Depot	東	E	36	9/11	13:51	東南偏東	ESE	15	9/11	15:00
屯門政府合署	Tuen Mun Government Offices	東北偏北	NNE	34	10/11	02:59	東北偏北	NNE	14	10/11	04:00
橫瀾島	Waglan Island	東北偏東	ENE	74	9/11	20:58	東北偏東	ENE	61	10/11	02:00
濕地公園	Wetland Park	東北偏北	NNE	22	9/11	14:37	東北偏東	ENE	8	9/11	13:00
							東北	NE	8	9/11	14:00
黃竹坑	Wong Chuk Hang	東南偏東	ESE	54	9/11	09:54	東北	NE	24	9/11	14:00
		東北	NE	54	9/11	13:35					

沙螺灣 - 沒有資料　Sha Lo Wan - data not available

表 3.5.2　在銀杏影響下，熱帶氣旋警告系統的八個參考測風站在熱帶氣旋警告信號生效時錄得持續風力達到強風程度的時段

Table 3.5.2　Periods during which sustained strong winds were attained at the eight reference anemometers in the tropical cyclone warning system when tropical cyclone warning signals for Yinxing were in force

站 (參閱圖 1.1) Station (See Fig. 1.1)		最初達到強風*時間 Start time when strong wind speed* was attained		最後達到強風*時間 End time when strong wind speed* was attained	
		日期/月份 Date/Month	時間 Time	日期/月份 Date/Month	時間 Time
長洲	Cheung Chau	10/11	01:29	10/11	02:04

香港國際機場、啟德、流浮山、西貢、沙田、打鼓嶺及青衣島蜆殼油庫的持續風力未達到強風程度。

The sustained wind speed did not attain strong force at Hong Kong International Airport, Kai Tak, Lau Fau Shan, Sai Kung, Sha Tin, Ta Kwu Ling and Tsing Yi Shell Oil Depot.

* 十分鐘平均風速達每小時 41 - 62 公里
* 10-minute mean wind speed of 41 - 62 km/h

註:　本表列出持續風力達到強風程度的起始及終結時間。期間風力可能高於或低於指定的風力。

Note: The table gives the start and end time of sustained strong winds. Winds might fluctuate above or below the specified wind speeds in between the times indicated.

表 3.5.3　銀杏影響香港期間，香港天文台總部及其他各站所錄得的日雨量
Table 3.5.3　Daily rainfall amounts recorded at the Hong Kong Observatory Headquarters and other stations during the passage of Yinxing

站 Station			十一月八日 8 Nov	十一月九日 9 Nov	十一月十日 10 Nov	總雨量(毫米) Total rainfall (mm)
香港天文台 Hong Kong Observatory (HKO)			0.0	1.9	6.2	8.1
香港國際機場 Hong Kong International Airport (HKA)			0.0	0.5	2.8	3.3
長洲 Cheung Chau (CCH)			0.0	3.0	7.0	10.0
H23	香港仔	Aberdeen	0.0	2.0	3.0	5.0
N05	粉嶺	Fanling	0.0	0.0	0.5	0.5
N13	糧船灣	High Island	0.0	0.0	2.5	2.5
K04	佐敦谷	Jordan Valley	0.5	1.0	9.0	10.5
N06	葵涌	Kwai Chung	0.0	0.0	11.5	11.5
H12	半山區	Mid Levels	5.0	2.0	7.5	14.5
N09	沙田	Sha Tin	0.0	0.0	11.5	11.5
H19	筲箕灣	Shau Kei Wan	0.0	3.5	4.5	8.0
SEK	石崗	Shek Kong	0.0	0.0	1.0	1.0
K06	蘇屋邨	So Uk Estate	0.5	0.5	10.0	11.0
R31	大美督	Tai Mei Tuk	0.0	0.0	2.5	2.5
R21	踏石角	Tap Shek Kok	0.0	0.0	0.5	0.5
N17	東涌	Tung Chung	0.0	0.5	7.5	8.0
TMR	屯門水庫	Tuen Mun Reservoir	0.0	0.0	1.4	1.4

表 3.5.4　銀杏影響香港期間，香港各潮汐站所錄得的最高潮位及最大風暴潮
Table 3.5.4　Times and heights of the maximum sea level and the maximum storm surge recorded at tide stations in Hong Kong during the passage of Yinxing

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
鰂魚涌	Quarry Bay	2.69	9/11	01:43	0.40	9/11	02:18
石壁	Shek Pik	2.71	9/11	01:10	0.43	9/11	14:58
大廟灣	Tai Miu Wan	2.66	9/11	01:53	0.41	9/11	01:53
大埔滘	Tai Po Kau	2.73	9/11	02:01	0.60	9/11	14:22
尖鼻咀	Tsim Bei Tsui	2.77	9/11	02:23	0.47	9/11	12:27
橫瀾島	Waglan Island	2.62	9/11	01:55	0.26	9/11	02:54

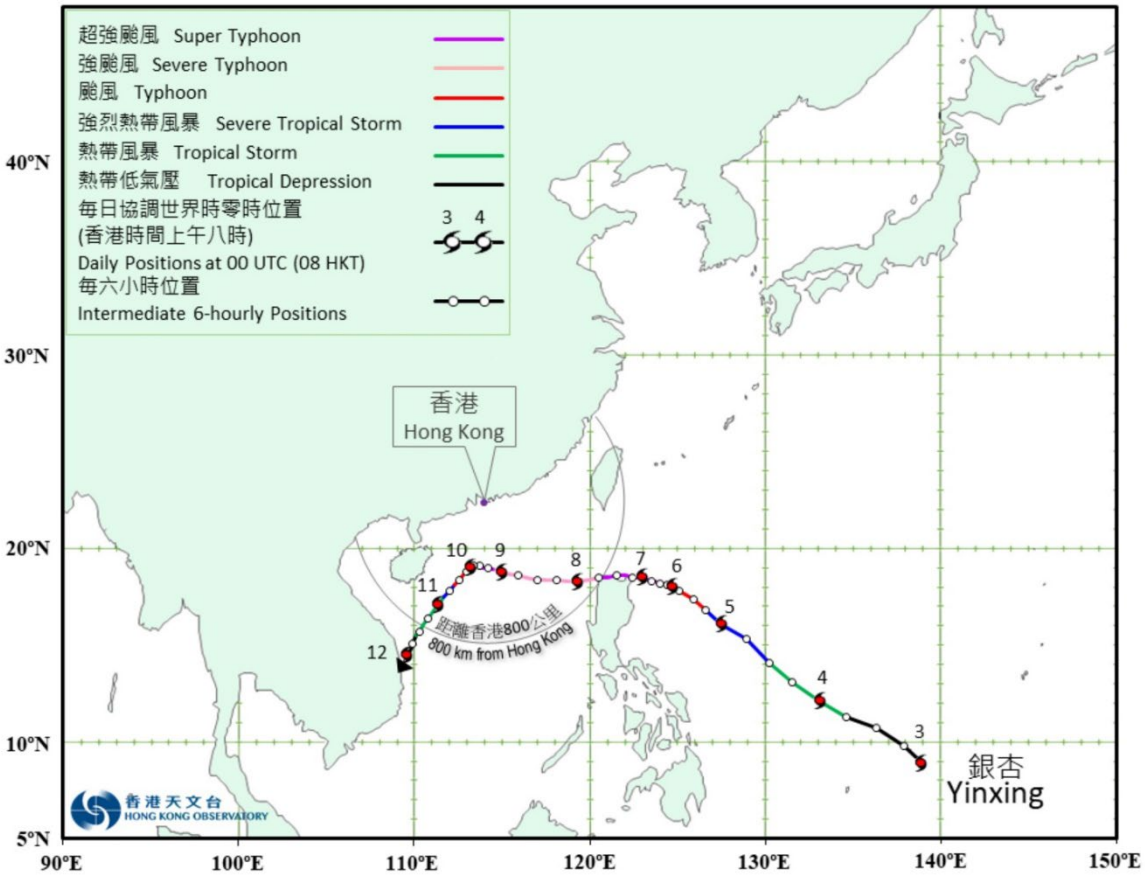

圖 3.5.1　　二零二四年十一月三日至十二日銀杏(2422)的路徑圖。

Figure 3.5.1　Track of Yinxing (2422): 3 – 12 November 2024.

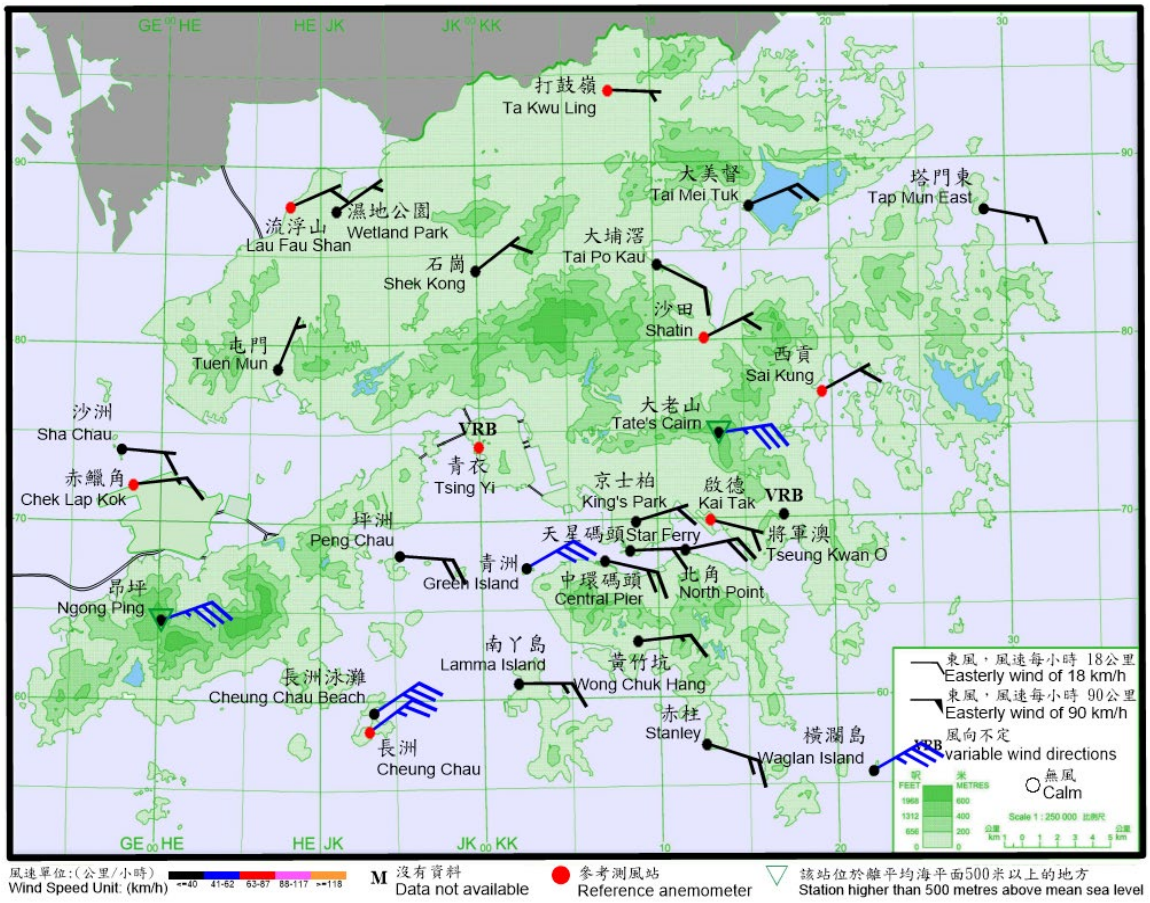

圖 3.5.2　二零二四年十一月十日上午1時30分香港各站錄得的十分鐘平均風向和風速。當時長洲、長洲泳灘、青洲、橫瀾島、昂坪及大老山的風力達到強風程度。

Figure 3.5.2　10-minute mean wind direction and speed recorded at various stations in Hong Kong at 1:30 a.m. on 10 November 2024. Winds at Cheung Chau, Cheung Chau Beach, Green Island, Waglan Island, Ngong Ping and Tate's Cairn reached strong force at that time.

註：　青衣及將軍澳當時錄得的十分鐘平均風速分別為每小時8及9公里。

Note: The 10-minute mean wind speed recorded at the time at Tsing Yi and Tseung Kwan O were 8 and 9 km/h respectively.

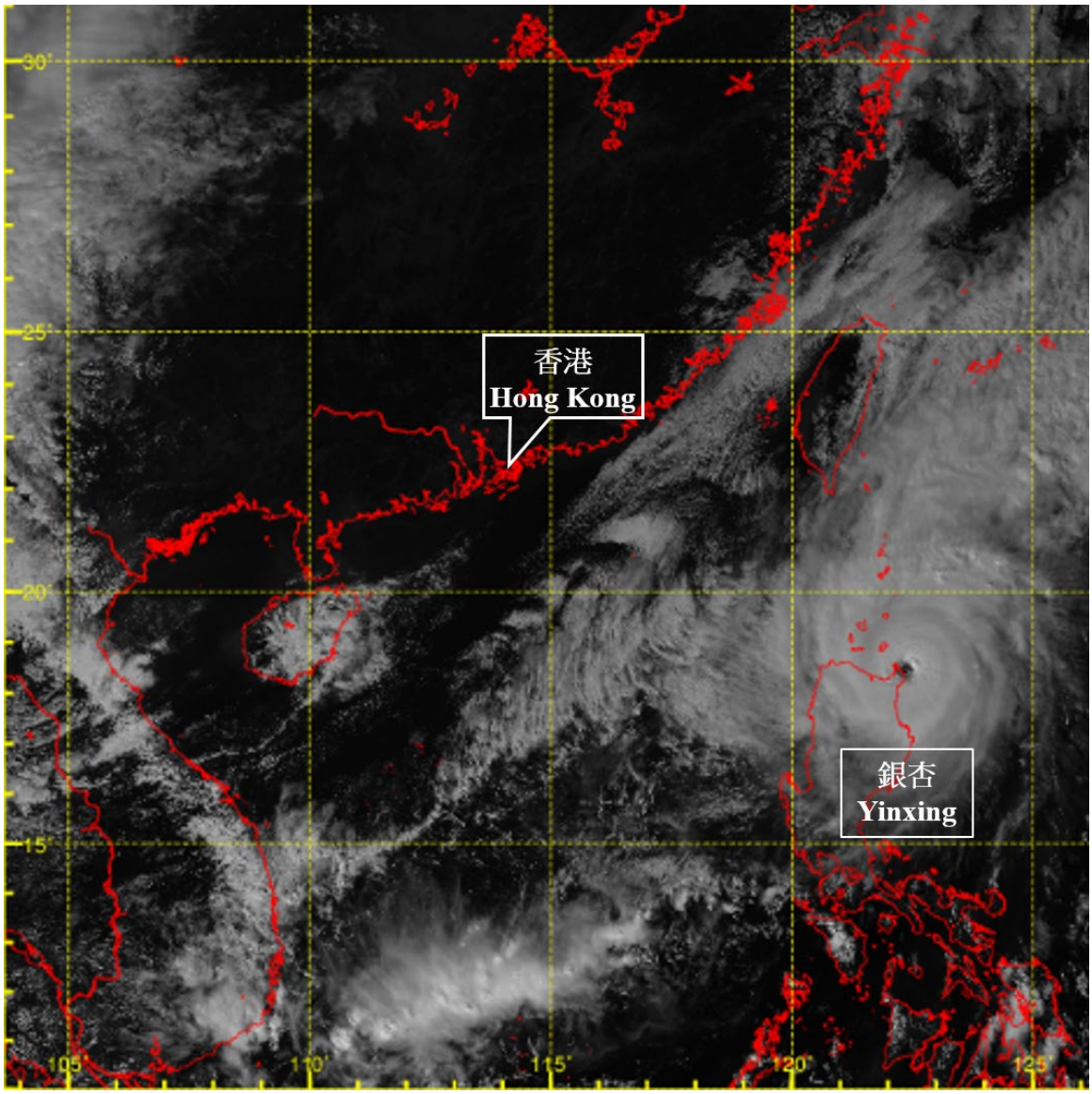

圖 3.5.3　二零二四年十一月七日下午2時左右的可見光衛星圖片，當時銀杏達到其最高強度，中心附近最高持續風速估計為每小時220公里。

Figure 3.5.3　Visible satellite imagery at around 2 p.m. on 7 November 2024 when Yinxing was at its peak intensity with an estimated maximum sustained wind of 220 km/h near its centre.

〔此衛星圖像接收自日本氣象廳的向日葵9號衛星。〕

[The satellite imagery was originally captured by Himawari-9 Satellite (H-9) of Japan Meteorological Agency (JMA).]

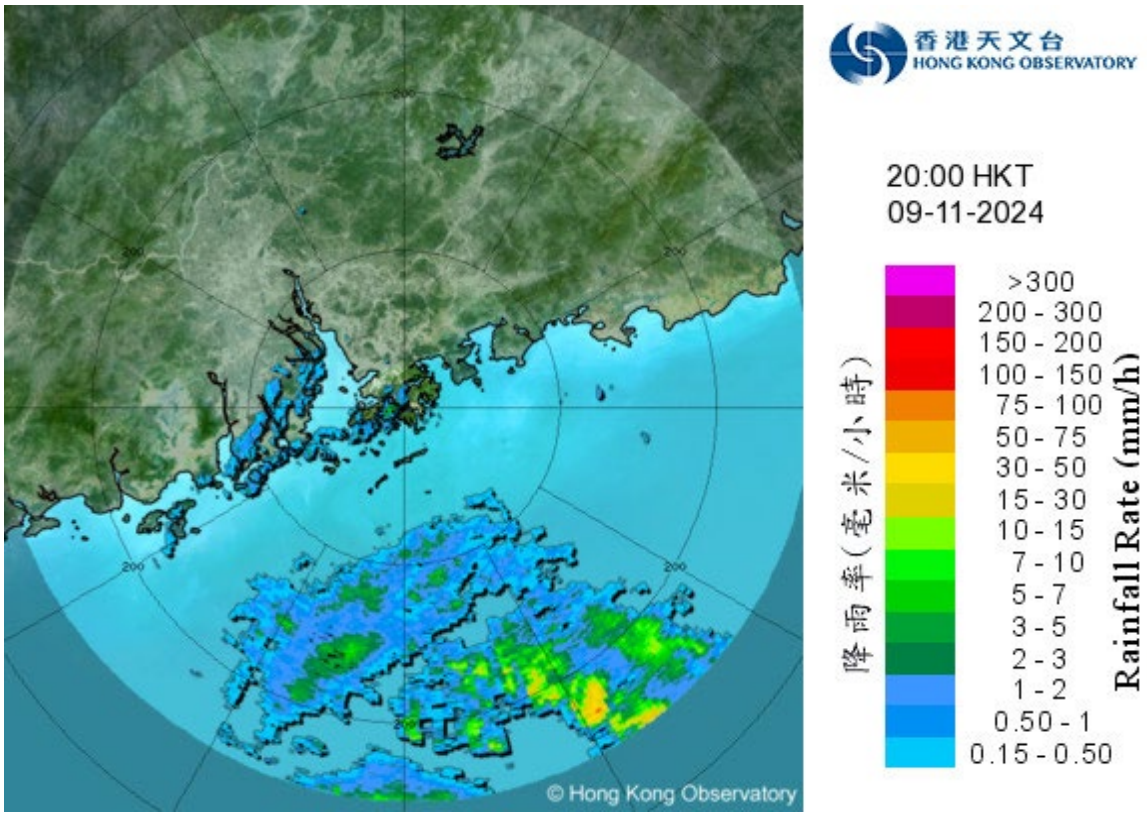

圖 3.5.4　二零二四年十一月九日晚上8時正的雷達回波圖像。當時銀杏最接近本港，位置在香港以南約360公里。同時，與銀杏相關的外圍雨帶正影響廣東沿岸及南海北部。

Figure 3.5.4　Radar echoes captured at 8:00 p.m. on 9 November 2024. Yinxing came closest to Hong Kong at that time, skirting past about 360 km south of the territory. Meanwhile, the outer rainbands associated with Yinxing were affecting the coast of Guangdong and the northern part of the SCS.

3.6 颱風桃芝(2423)：二零二四年十一月九日至十五日

桃芝是二零二四年第六個影響香港的熱帶氣旋。桃芝吹襲香港期間，天文台需要於十一月十三日晚上發出八號烈風或暴風信號，是自一九四六年以來年內最遲發出的八號烈風或暴風信號。

熱帶低氣壓桃芝於十一月九日早上在馬尼拉以東約1 270公里的北太平洋西部上形成，隨後向西至西北偏西移向呂宋，當晚增強為熱帶風暴。桃芝於翌日逐步增強為颱風，並於十一月十一日早上在呂宋以東近岸海域達到其最高強度，中心附近最高持續風速估計為每小時130公里。桃芝於當日日間橫過呂宋，逐漸轉向西北移動，並於傍晚進入南海中部。桃芝於隨後兩日移向廣東沿岸，並逐漸減弱為熱帶風暴。桃芝於十一月十四日早上轉向西緩慢移動，橫過香港以南海域。最後，桃芝於十一月十五日早上在上川島以南海域減弱為低壓區。

根據報章報導，桃芝為菲律賓帶來狂風暴雨，導致多地水浸及多人傷亡。

天文台在十一月十一日晚上10時20分發出一號戒備信號，當時桃芝集結在香港之東南約730公里。翌日至十一月十三日早上本港吹和緩東北風，離岸風勢間中清勁。隨著桃芝靠近廣東沿岸，天文台在十一月十三日下午2時40分改發三號強風信號，當時桃芝位於香港之東南約230公里。在桃芝與東北季候風的共同影響下，當日稍後本港風力逐漸增強，吹清勁至強風程度的北至東北風，高地間中吹烈風。

隨著當晚桃芝進一步靠近珠江口一帶，雷達圖像（圖3.6.6）顯示與桃芝相關的烈風區頗為接近香港，並預料對本港構成威脅，天文台在十一月十三日晚上11時10分發出八號東北烈風或暴風信號，當時桃芝集結在香港之東南偏南約160公里。當晚及翌日早上本港風力進一步增強，大部分地區吹強風至烈風程度東北風。

桃芝於十一月十四日早上5時左右最接近香港，在本港以南約130公里掠過。當日早上桃芝向西緩慢橫過香港以南海域。隨著桃芝減弱及其烈風區逐漸縮小，天文台在十一月十四日上午10時20分改發三號強風信號，取代八號東北烈風或暴風信號。日間本港仍然吹強風程度的東至東北風。晚上桃芝繼續減弱及遠離香港，本港風力逐漸緩和，天文台在十一月十四日晚上10時20分改發一號戒備信號，並在十一月十五日上午1時20分取消所有熱帶氣旋警告信號。

在桃芝的影響下，橫瀾島、昂坪及長洲泳灘錄得的最高每小時平均風速分別為每小時73、70及60公里，而最高陣風則分別為每小時93、102及80公里。尖鼻咀錄得最高潮位(海圖基準面以上) 2.86米，而大埔滘則錄得最大風暴潮(天文潮高度以上) 0.65米。各站錄得的最低瞬時海平面氣壓如下：

站	最低瞬時海平面氣壓(百帕斯卡)	日期/月份	時間
香港天文台總部	1007.8	14/11	上午3時29分
香港國際機場	1007.9	14/11	下午2時08分
長洲	1007.6	14/11	上午3時28分
京士柏	1007.8	14/11	上午4時15分
流浮山	1008.3	14/11	下午1時38分
坪洲	1007.7	14/11	上午3時56分
沙田	1008.1	14/11	上午3時58分
上水	1008.3	14/11	下午1時38分
打鼓嶺	1008.3	14/11	上午3時18分
大埔 (元洲仔公園)	1009.0	14/11	上午3時25分
橫瀾島	1006.7	14/11	上午4時13分

十一月十一日本港初時局部地區有驟雨，但下午及翌日轉為大致天晴。隨著桃芝靠近，十一月十三日本港天氣轉壞，驟雨增多。十一月十四日桃芝的外圍雨帶為本港帶來狂風驟雨，而在桃芝殘餘的影響下，十一月十五日本港仍然多雲及間中有雨。十一月十四日至十五日本港普遍錄得超過30毫米雨量，而沙田區及大埔區部分地方的雨量更超過70毫米。

桃芝吹襲香港期間，有一人受傷，至少227宗塌樹報告。

3.6 Typhoon Toraji (2423): 9 to 15 November 2024

Toraji was the sixth tropical cyclone affecting Hong Kong in 2024. During the passage of Toraji, the Observatory issued the No. 8 Gale or Storm Signal on the night of 13 November, the latest issuance of No. 8 Gale or Storm Signal in a year since 1946.

Toraji formed as a tropical depression over the WNP about 1 270 km east of Manila on the morning of 9 November. It then moved west to west-northwestwards towards Luzon and intensified into a tropical storm that night. Toraji intensified progressively into a typhoon the next day and attained its peak intensity over the coastal waters east of Luzon with an estimated maximum sustained wind of 130 km/h near its centre on the morning of 11 November. Toraji moved across Luzon during the day that day and gradually turned to move northwestwards and entered the central part of the SCS that evening. Toraji moved towards the coast of Guangdong and weakened gradually into a tropical storm in the following two days. It turned to move westwards slowly across the seas south of Hong Kong on the morning of 14 November. Toraji finally degenerated into an area of low pressure over the seas south of Shangchuan Dao on the morning of 15 November.

According to press reports, Toraji brought heavy rain and squalls to the Philippines, leading to flooding in many places and many casualties.

The Standby Signal No. 1 was issued at 10:20 p.m. on 11 November, when Toraji was about 730 km southeast of Hong Kong. Local winds were moderate northeasterlies and occasionally fresh offshore the next day and on the morning of 13 November. With Toraji edging closer to the coast of Guangdong, the No. 3 Strong Wind Signal was issued at 2:40 p.m. on 13 November, when Toraji was about 230 km southeast of Hong Kong. Under the combined effect of Toraji and the northeast monsoon, winds over Hong Kong strengthened gradually later that day with fresh to strong north to northeasterlies, occasionally reaching gale force on high ground.

As Toraji further approached the vicinity of the Pearl River Estuary that night, the radar imagery (Figure 3.6.6) revealed that the gale force winds associated with Toraji were rather close to Hong Kong and were expected to pose a threat to the territory. Thus, the No. 8 Northeast Gale or Storm Signal was issued at 11:10 p.m. on 13 November when Toraji was about 160 km south-southeast of Hong Kong. Local winds strengthened further that night and the next morning, with strong to gale force northeasterlies affecting most parts of the territory.

Toraji came closest to Hong Kong at around 5 a.m. on 14 November, when it skirted past about 130 km south of the territory. Toraji moved westwards slowly across the seas south of Hong Kong that morning. With Toraji weakening and the area of its associated gale force winds diminishing, the No. 8 Northeast Gale or Storm Signal was replaced by the No. 3 Strong Wind Signal at 10:20 a.m. on 14 November. Strong east to northeasterlies continued to prevail locally during the day. As Toraji continued to weaken and move further away from Hong Kong that night, local winds moderated gradually. The No. 3 Strong Wind Signal was replaced by the No.1 Standby Signal l at 10:20 p.m. on 14 November and all tropical cyclone warning signals were cancelled at 1:20 a.m. on 15 November.

Under the influence of Toraji, maximum hourly mean winds of 73, 70 and 60 km/h and gusts of 93, 102 and 80 km/h were recorded at Waglan Island, Ngong Ping and Cheung Chau Beach respectively. A maximum sea level of 2.86 m (above chart datum) was recorded at Tsim Bei Tsui and a maximum storm surge of 0.65 m (above astronomical tide) was recorded at Tai Po Kau. The lowest instantaneous mean sea-level pressures recorded at selected stations are as follows:

Station	Lowest instantaneous mean sea-level pressure (hPa)	Date/Month	Time
Hong Kong Observatory Headquarters	1007.8	14/11	3:29 a.m.
Hong Kong International Airport	1007.9	14/11	2:08 p.m.
Cheung Chau	1007.6	14/11	3:28 a.m.
King's Park	1007.8	14/11	4:15 a.m.
Lau Fau Shan	1008.3	14/11	1:38 p.m.
Peng Chau	1007.7	14/11	3:56 a.m.
Sha Tin	1008.1	14/11	3:58 a.m.
Sheung Shui	1008.3	14/11	1:38 p.m.
Ta Kwu Ling	1008.3	14/11	3:18 a.m.
Tai Po (Yuen Chau Tsai Park)	1009.0	14/11	3:25 a.m.
Waglan Island	1006.7	14/11	4:13 a.m.

While there were a few isolated showers at first on 11 November, the weather turned mainly fine that afternoon and the next day. With the approach of Toraji, the weather of Hong Kong deteriorated with more showers on 13 November. The outer rainbands of Toraji brought squally showers to Hong Kong on 14 November. Also under the influence of the remnant of Toraji, the weather remained cloudy with occasional rain on 15 November. More than 30 millimetres of rainfall were generally recorded over the territory and rainfall even exceeded 70 millimetres over parts of Sha Tin and Tai Po Districts on 14 – 15 November.

In Hong Kong, one person was injured and there were at least 227 reports of fallen trees during the passage of Toraji.

表 3.6.1　在桃芝影響下，本港各站在熱帶氣旋警告信號生效時所錄得的最高陣風、最高每小時平均風速及風向

Table 3.6.1　Maximum gust peak speeds and maximum hourly mean winds with associated wind directions recorded at various stations when the tropical cyclone warning signals for Toraji were in force

站 (參閱圖 1.1) Station (See Fig. 1.1)		最高陣風 Maximum Gust					最高每小時平均風速 Maximum Hourly Mean 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
黃麻角(赤柱)	Bluff Head (Stanley)	東南偏東	ESE	87	14/11	03:15	東南偏東	ESE	40	14/11	09:00
中環碼頭	Central Pier	東	E	68	14/11	10:50	東	E	40	14/11	10:00
長洲	Cheung Chau	東	E	74	14/11	11:56	東	E	53	14/11	13:00
長洲泳灘	Cheung Chau Beach	東北	NE	80	14/11	02:12	東北偏東	ENE	60	14/11	03:00
青洲	Green Island	東北偏東	ENE	81	14/11	04:26	東北偏東	ENE	54	14/11	11:00
香港國際機場	Hong Kong International Airport	東	E	45	14/11	14:23	東	E	27	14/11	15:00
啟德	Kai Tak	東	E	64	14/11	09:43	東南偏東	ESE	27	14/11	10:00
							東南偏東	ESE	27	14/11	11:00
京士柏	King's Park	東北偏東	ENE	69	14/11	00:17	東北	NE	25	14/11	01:00
南丫島	Lamma Island	東	E	66	14/11	07:57	東南偏東	ESE	33	14/11	13:00
流浮山	Lau Fau Shan	東	E	45	14/11	14:06	東	E	24	14/11	11:00
昂坪	Ngong Ping	東	E	102	14/11	09:41	東	E	70	14/11	11:00
		東北偏東	ENE	102	14/11	10:51					
北角	North Point	東	E	79	14/11	09:32	東	E	49	14/11	10:00
坪洲	Peng Chau	東	E	60	14/11	16:12	東	E	44	14/11	12:00
平洲	Ping Chau	東北偏東	ENE	42	14/11	02:32	東北偏東	ENE	14	14/11	03:00
		東北偏東	ENE	42	14/11	09:38					
西貢	Sai Kung	東北偏東	ENE	66	14/11	08:41	東北偏東	ENE	41	14/11	10:00
沙洲	Sha Chau	北	N	44	14/11	03:34	北	N	33	14/11	04:00
							北	N	33	14/11	05:00
							北	N	33	14/11	07:00
沙田	Sha Tin	東北偏北	NNE	60	14/11	02:14	東北	NE	19	14/11	03:00
石崗	Shek Kong	東北偏東	ENE	73	14/11	11:48	東北偏東	ENE	30	14/11	13:00
九龍天星碼頭	Star Ferry (Kowloon)	東	E	55	14/11	12:29	東	E	28	14/11	11:00
打鼓嶺	Ta Kwu Ling	東北偏東	ENE	41	14/11	10:21	東北偏東	ENE	17	14/11	11:00
大美督	Tai Mei Tuk	東北偏東	ENE	71	14/11	09:03	東北偏東	ENE	47	14/11	10:00
大帽山	Tai Mo Shan	東南偏東	ESE	95	14/11	11:54	東南偏東	ESE	69	14/11	13:00
大埔滘	Tai Po Kau	東南偏東	ESE	57	14/11	11:34	東	E	42	14/11	11:00
							東	E	42	14/11	12:00
塔門東	Tap Mun East	東	E	68	14/11	09:26	東	E	55	14/11	10:00
		東	E	68	14/11	09:43					
大老山	Tate's Cairn	東北	NE	99	13/11	20:59	東北偏東	ENE	75	13/11	21:00
將軍澳	Tseung Kwan O	東北偏北	NNE	60	13/11	23:24	東南偏東	ESE	18	14/11	10:00
青衣島蜆殼油庫	Tsing Yi Shell Oil Depot	東南偏東	ESE	57	14/11	11:51	東南偏東	ESE	19	14/11	13:00
屯門政府合署	Tuen Mun Government Offices	東南偏東	ESE	41	14/11	13:53	東北偏北	NNE	10	13/11	16:00
橫瀾島	Waglan Island	東北偏東	ENE	93	14/11	02:04	東北偏東	ENE	73	14/11	03:00
濕地公園	Wetland Park	東北偏東	ENE	33	14/11	11:58	東北偏東	ENE	11	14/11	15:00
黃竹坑	Wong Chuk Hang	東	E	71	14/11	09:02	東	E	29	14/11	10:00

沙螺灣 - 沒有資料　Sha Lo Wan - data not available

表 3.6.2　在桃芝影響下，熱帶氣旋警告系統的八個參考測風站在熱帶氣旋警告信號生效時錄得持續風力達到強風及烈風程度的時段

Table 3.6.2　Periods during which sustained strong and gale force winds were attained at the eight reference anemometers in the tropical cyclone warning system when tropical cyclone warning signals for Toraji were in force

站 (參閱圖 1.1) Station (See Fig. 1.1)		最初達到強風*時間 Start time when strong wind speed* was attained		最後達到強風*時間 End time when strong wind speed* was attained	
		日期/月份 Date/Month	時間 Time	日期/月份 Date/Month	時間 Time
長洲	Cheung Chau	13/11	15:48	14/11	18:11
西貢	Sai Kung	14/11	02:22	14/11	11:41

香港國際機場、啟德、流浮山、沙田、打鼓嶺及青衣島蜆殼油庫的持續風力未達到強風程度。

The sustained wind speed did not attain strong force at Hong Kong International Airport, Kai Tak, Lau Fau Shan, Sha Tin, Ta Kwu Ling and Tsing Yi Shell Oil Depot.

所有參考測風站的持續風力未達到烈風#程度。

The sustained wind speed did not attain gale# force at all reference anemometers.

* 十分鐘平均風速達每小時 41 - 62 公里

* 10-minute mean wind speed of 41 - 62 km/h

十分鐘平均風速達每小時 63 - 87 公里

10-minute mean wind speed of 63 - 87 km/h

註:　本表列出持續風力達到強風程度的起始及終結時間。期間風力可能高於或低於指定的風力。

Note:　The table gives the start and end time of sustained strong winds. Winds might fluctuate above or below the specified wind speeds in between the times indicated.

表 3.6.3　桃芝影響香港期間，香港天文台總部及其他各站所錄得的日雨量
Table 3.6.3　Daily rainfall amounts recorded at the Hong Kong Observatory Headquarters and other stations during the passage of Toraji

站 (參閱圖 3.6.2) Station (See Fig. 3.6.2)			十一月十一日 11 Nov	十一月十二日 12 Nov	十一月十三日 13 Nov	十一月十四日 14 Nov	十一月十五日 15 Nov	總雨量(毫米) Total rainfall (mm)
香港天文台 Hong Kong Observatory (HKO)			0.0	0.0	14.8	6.3	36.6	57.7
香港國際機場 Hong Kong International Airport (HKA)			微量 Trace	0.0	10.4	16.0	13.7	40.1
長洲 Cheung Chau (CCH)			0.0	0.0	10.5	1.5	13.0	25.0
H23	香港仔	Aberdeen	0.0	0.0	16.0	4.5	20.0	40.5
N05	粉嶺	Fanling	0.0	0.0	10.0	18.0	26.5	54.5
N13	糧船灣	High Island	0.0	5.0	21.5	14.5	37.0	78.0
K04	佐敦谷	Jordan Valley	0.0	0.0	20.0	12.0	56.5	88.5
N06	葵涌	Kwai Chung	0.0	0.0	10.5	28.0	30.5	69.0
H12	半山區	Mid Levels	0.0	0.0	16.5	8.5	35.0	60.0
N09	沙田	Sha Tin	0.0	0.0	19.5	28.5	41.0	89.0
H19	筲箕灣	Shau Kei Wan	0.0	0.0	20.5	6.5	45.0	72.0
SEK	石崗	Shek Kong	0.0	0.0	14.5	43.5	20.5	78.5
K06	蘇屋邨	So Uk Estate	0.0	0.0	10.5	14.5	30.0	55.0
R31	大美督	Tai Mei Tuk	0.0	0.0	20.0	14.5	24.5	59.0
R21	踏石角	Tap Shek Kok	0.0	0.0	5.5	8.0	14.5	28.0
N17	東涌	Tung Chung	0.0	0.0	10.5	25.0	13.0	48.5
TMR	屯門水庫	Tuen Mun Reservoir	0.0	0.0	9.8	25.1	21.7	56.6

表 3.6.4　桃芝影響香港期間，香港各潮汐站所錄得的最高潮位及最大風暴潮
Table 3.6.4　Times and heights of the maximum sea level and the maximum storm surge recorded at tide stations in Hong Kong during the passage of Toraji

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
鰂魚涌	Quarry Bay	2.61	13/11	20:04	0.40	13/11	20:08
石壁	Shek Pik	2.64	13/11	20:19	0.40	13/11	20:19
大廟灣	Tai Miu Wan	2.60	13/11	19:19	0.46	13/11	19:19
大埔滘	Tai Po Kau	2.76	13/11	19:11	0.65	13/11	19:02
尖鼻咀	Tsim Bei Tsui	2.86	13/11	21:15	0.47	13/11	21:40
橫瀾島	Waglan Island	2.51	13/11	19:29	0.24	13/11	19:20

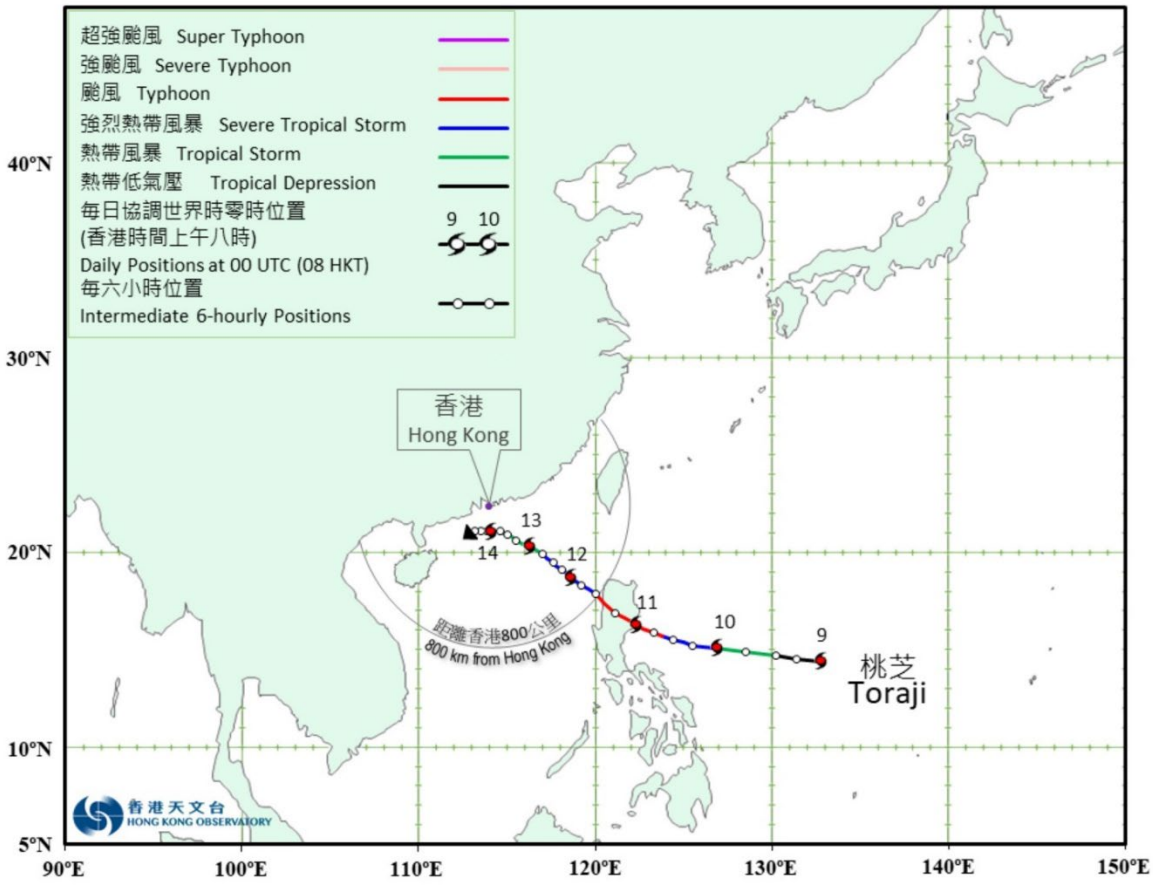

圖 3.6.1a　　二零二四年十一月九日至十五日桃芝(2423)的路徑圖。

Figure 3.6.1a　Track of Toraji (2423): 9 – 15 November 2024.

圖 3.6.1b　　桃芝(2423)接近香港時的路徑圖。

Figure 3.6.1b　Track of Toraji (2423) near Hong Kong.

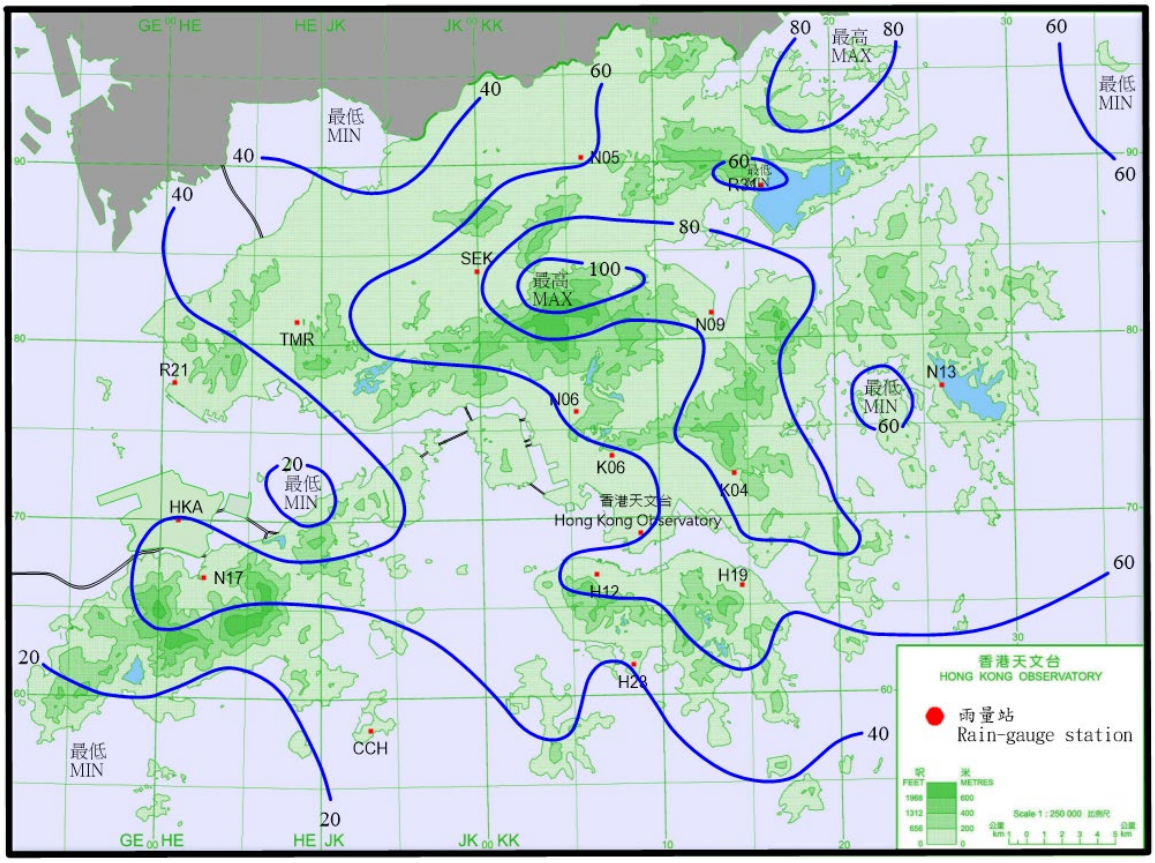

圖 3.6.2　　二零二四年十一月十一日至十五日的雨量分佈(等雨量線單位為毫米)。

Figure 3.6.2　Rainfall distribution on 11 – 15 November 2024 (isohyets are in millimetres).

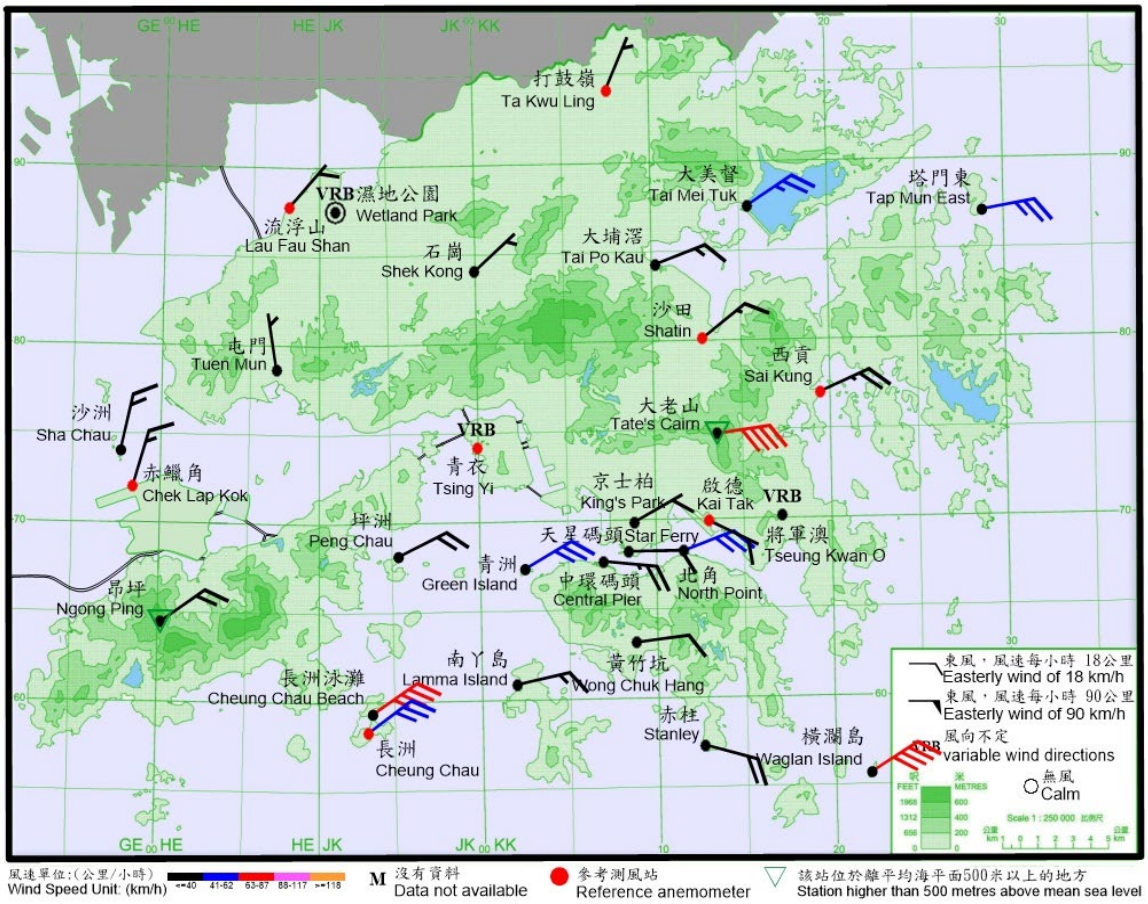

圖 3.6.3　二零二四年十一月十四日早上2時30分香港各站錄得的十分鐘平均風向和風速。當時本港普遍吹東至東北風，長洲泳灘、橫瀾島及大老山的風力達到烈風程度。

Figure 3.6.3　10-minute mean wind direction and speed recorded at various stations in Hong Kong at 2:30 a.m. on 14 November 2024. Local winds were generally east to northeasterlies. Winds at Cheung Chau Beach, Waglan Island and Tate's Cairn reached gale force at the time.

註：　濕地公園、青衣及將軍澳當時錄得的十分鐘平均風速分別為每小時1、6及17公里。

Note: The 10-minute mean wind speeds recorded at the time at Wetland Park, Tsing Yi and Tseung Kwan O were 1, 6 and 17 km/h respectively.

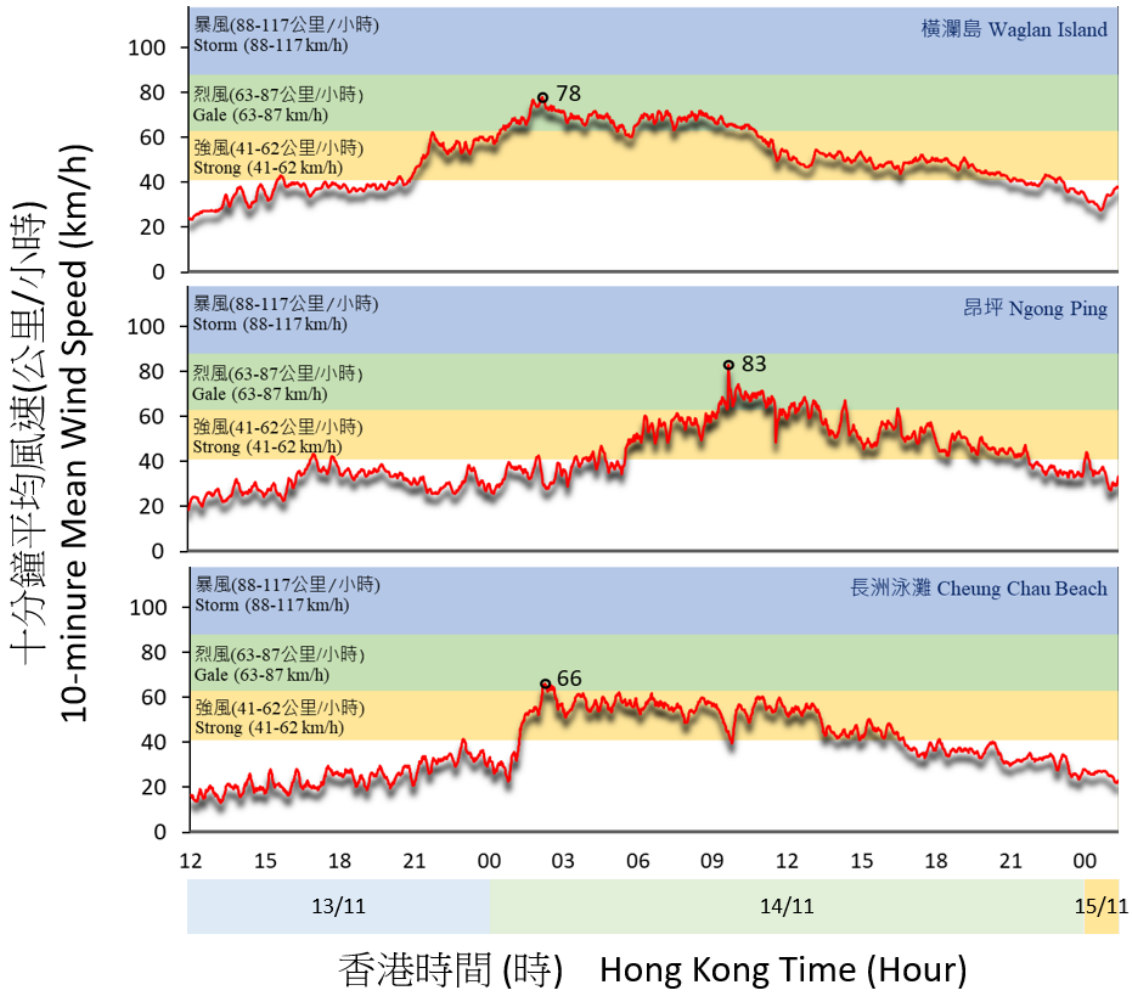

圖 3.6.4　二零二四年十一月十三日至十五日橫瀾島、昂坪及長洲泳灘錄得的十分鐘平均風速。

Figure 3.6.4　Traces of 10-minute mean wind speed recorded at Waglan Island, Ngong Ping and Cheung Chau Beach on 13 – 15 November 2024.

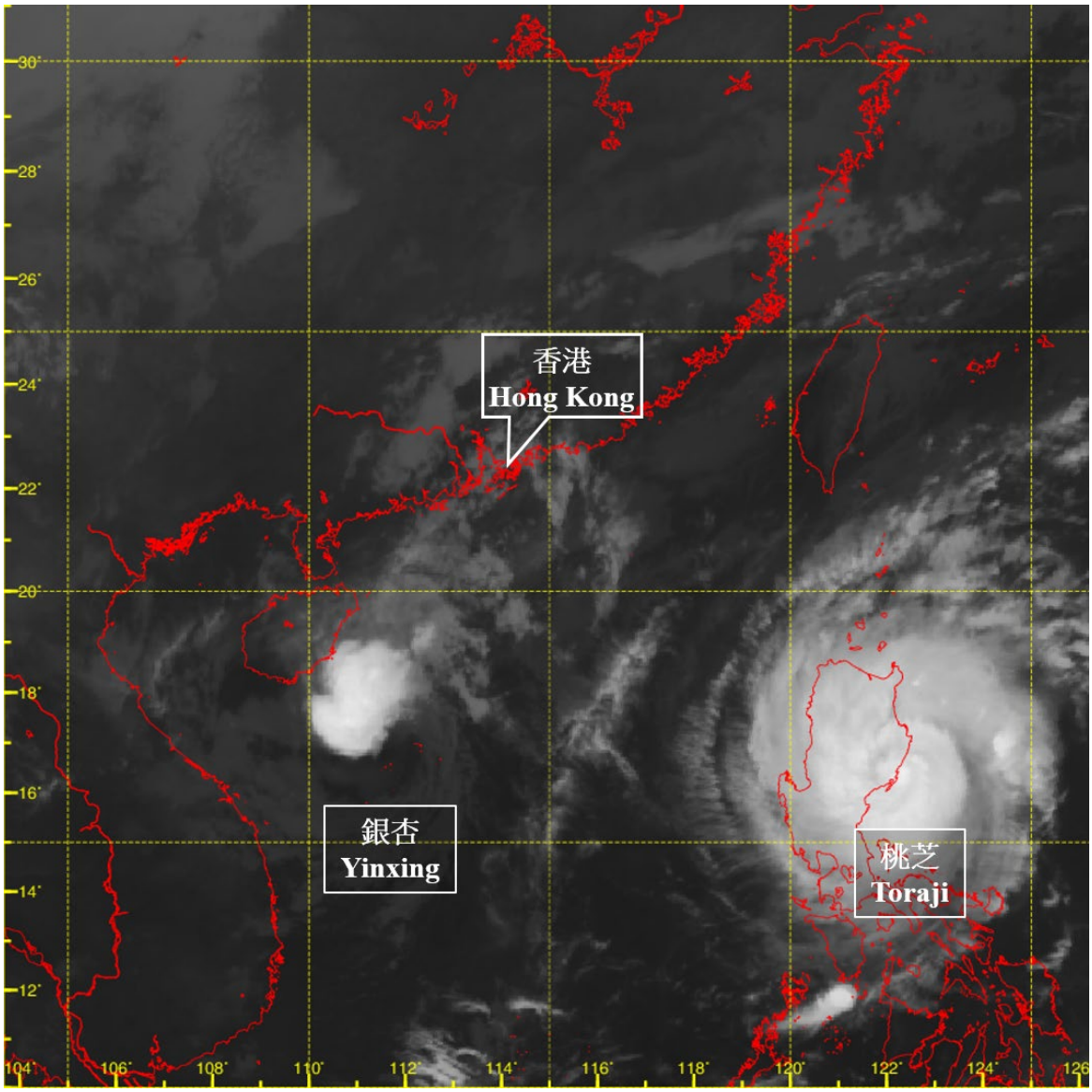

圖 3.6.5　二零二四年十一月十一日上午八時左右的紅外線衛星圖片，當時桃芝中心附近最高持續風速估計為每小時130公里。此外，位於海南島東南對出海域的熱帶氣旋銀杏正向西南移動，並逐漸減弱。

Figure 3.6.5　Infra-red satellite imagery at around 8 a.m. on 11 November 2024. The maximum sustained wind near the centre of Toraji was estimated to be 130 km/h at that time. Besides, tropical cyclone Yinxing over the seas southeast of Hainan Island was moving southwestwards and weakening gradually.

〔此衛星圖像接收自中國氣象局的風雲4號B星。〕

[The satellite imagery was originally captured by Feng-Yun-4B Satellite (FY-4B) of China Meteorological Administration.]

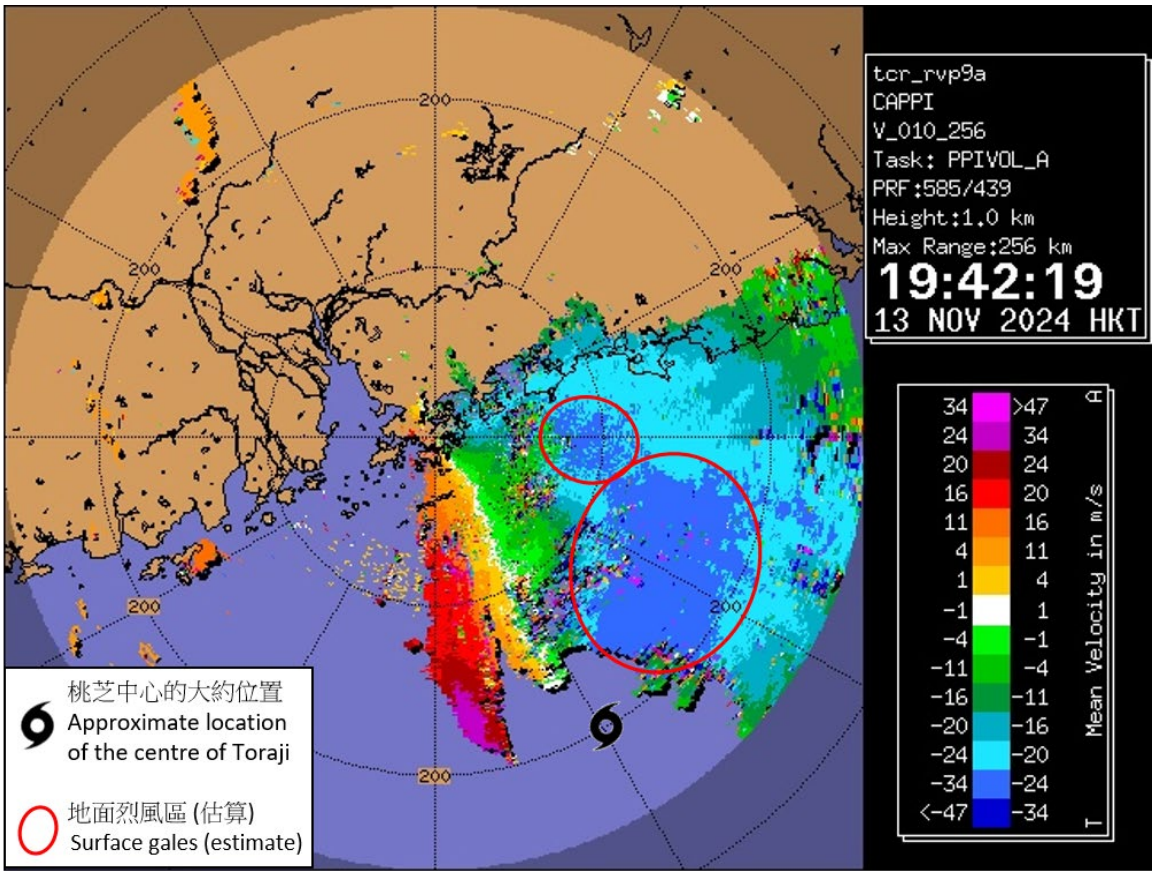

圖 3.6.6　二零二四年十一月十三日晚上7時42分左右的多普勒雷達回波圖像，顯示在約 1公里高度的徑向風（即雨區在雷達方向的速度，正（負）速度表示雨區遠離（接近）雷達）。圖像顯示當時位於桃芝以北的地面烈風區頗為接近香港，當桃芝向西或西北偏西移動時，預料其烈風區會對本港構成威脅。

Figure 3.6.6　Radar imagery showing the Doppler velocity at around 7:42 p.m. on 13 November 2024. The image revealed the radial winds at around 1 km (i.e. the velocity of rain echoes relative to the radar, and positive (negative) values indicates rain echoes moving away from (towards) the radar). The image showed that the surface gale winds to the north of Toraji was rather close to Hong Kong. When Toraji was moving west or west-northwest, its associated gale force winds were expected to pose a threat to the territory.

註：　關於估算地面烈風區的方法，請參考「利用雷達多普勒風估算熱帶氣旋的地面風力分佈」(https://www.hko.gov.hk/publica/reprint/r865.pdf)。

Note:　For the method of estimating the surface gales, please refer to "Using Doppler Radar Wind to Estimate the Surface Wind Distribution of Tropical Cyclones (Chinese Only)" (https://www.hko.gov.hk/publica/reprint/r865.pdf).

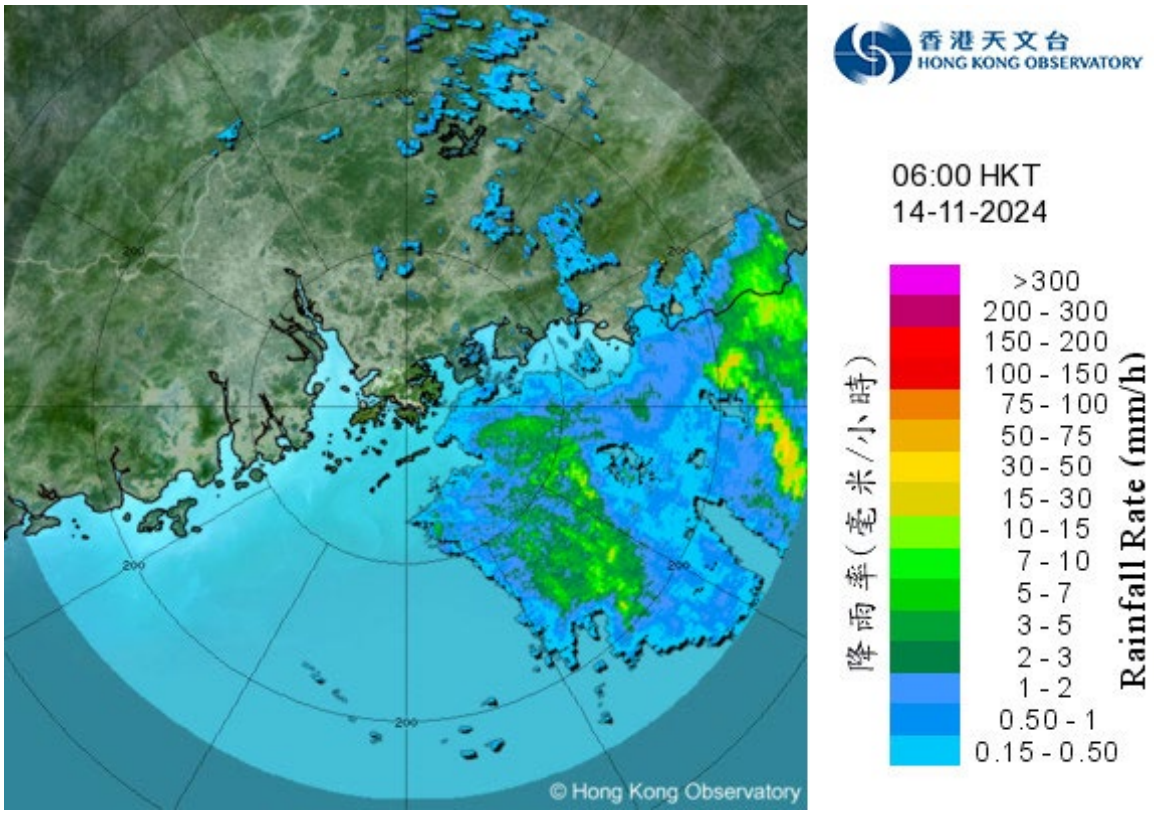

圖 3.6.7　二零二四年十一月十四日早上6時正的雷達回波圖像，當時桃芝最接近香港，在本港以南約130公里掠過。與桃芝相關的強雨帶正影響廣東沿岸。

Figure 3.6.7　Radar echoes captured at 6 a.m. on 14 November 2024 when Toraji was closest to Hong Kong, skirting past about 130 km south of the territory. The intense rainbands associated with Toraji were affecting the coast of Guangdong.

圖 3.6.8　桃芝(2423)吹襲香港期間，長沙灣警署外有大樹倒塌。(鳴謝：Now新聞)

Figure 3.6.8　A large tree fell outside Cheung Sha Wan Police Station during the passage of Toraji (2423). (Courtesy of Now News)

圖 3.6.9　桃芝(2423)吹襲香港期間，跑馬地畢拉山道有大樹倒塌。(鳴謝：路政署)

Figure 3.6.9　A large tree fell on Mount Butler Road, Happy Valley during the passage of Toraji (2423). (Courtesy of Highways Department)

3.7 超強颱風萬宜(2424)：二零二四年十一月九日至十九日

萬宜是二零二四年第七個影響香港的熱帶氣旋。繼熱帶氣旋銀杏及桃芝，萬宜吹襲香港期間，天文台需要在十一月第三度發出熱帶氣旋警告信號，是自一九四六年以來首次。

熱帶低氣壓萬宜於十一月九日凌晨在關島以東約1 840公里的北太平洋西部上形成，向西北至西北偏西移動，並於當日增強為熱帶風暴。隨後四天萬宜改為採取西南偏西路徑，橫過關島附近海域。萬宜於十一月十四日至十六日逐漸由偏西轉向西北移動，移向呂宋。萬宜於十一月十六日凌晨增強為超強颱風，並於早上達到其最高強度，中心附近最高持續風速估計為每小時220公里。萬宜於十一月十七日橫過呂宋，進入南海中部，並迅速減弱。翌日萬宜大致向西北偏西橫過南海北部。十一月十九日下午萬宜逐漸轉向西南偏西移動，最後於十一月二十日凌晨在海南島東南對出海域減弱為低壓區。

根據報章報導，萬宜為菲律賓帶來狂風暴雨，造成多地水浸及嚴重破壞，大量樹木倒塌及房屋損毀，多人傷亡。

天文台於十一月十八日上午6時40分發出一號戒備信號，當時萬宜集結在香港之東南約660公里。當晚及翌日本港普遍吹和緩至清勁北至東北風，離岸及高地間中吹強風。萬宜於十一月十九日上午8時左右最接近本港，位置在香港以南約370公里。隨著萬宜遠離及減弱，對香港的威脅解除，天文台於十一月十九日晚上10時10分取消所有熱帶氣旋警告信號。

一股清勁至強風程度的東北季候風於十一月十八日影響本港，當日短暫時間有陽光。隨著萬宜靠近，本港亦有幾陣微雨。受東北季候風、萬宜及天文大潮的共同影響，十一月十八日晚上本港水位特別高。鰂魚涌、大澳及大埔滘的水位分別上升至海圖基準面以上3.36、3.36及3.52米，全部皆是有記錄以來十一月份的最高。採取了早期預防措施後，部分低窪地區，包括城門河兩旁、鯉魚門、大澳及沙頭角，僅出現輕微水浸。受東北季候風及萬宜相關的外圍雨帶影響，十一月十九日本港天色陰暗及有雨。

3.7 Super Typhoon Man-yi (2424): 9 to 19 November 2024

Man-yi was the seventh tropical cyclone affecting Hong Kong in 2024. Following tropical cyclones Yinxing and Toraji, Man-yi necessitated the issuance of tropical cyclone warning signal for the third time in November, the first time since 1946.

Man-yi formed as a tropical depression over the WNP about 1 840 km east of Guam in the small hours of 9 November, moved northwestwards to west-northwestwards, and intensified into a tropical storm that day. It turned to adopt a west-southwesterly track across the seas near Guam in the following four days. It turned gradually from moving westwards to northwestwards towards Luzon on 14 – 16 November. Man-yi intensified into a super typhoon in the small hours of 16 November and attained its peak intensity with an estimated maximum sustained wind of 220 km/h near its centre that morning. It moved across Luzon on 17 November, entered the central part of the SCS, and weakened rapidly. It then moved generally west-northwestwards across the northern part of the SCS the next day. Man-yi gradually turned to track west-southwestwards on the afternoon of 19 November and finally weakened into an area of low pressure over the seas southeast of Hainan Island in the small hours of 20 November.

According to press reports, Man-yi brought heavy rain and squalls to the Philippines, resulting in flooding and severe damage in many places. It caused many fallen trees, damaged houses and many casualties.

The Standby Signal No. 1 was issued at 6:40 a.m. on 18 November, when Man-yi was about 660 km southeast of Hong Kong. Local winds were moderate to fresh north to northeasterlies, occasionally strong offshore and on high ground that night and the next day. Man-yi came closest to Hong Kong at around 8 a.m. on 19 November, skirting past about 370 km south of the territory. With Man-yi departing from Hong Kong and weakening, it no longer posed a threat to Hong Kong and all tropical cyclone warning signals were cancelled at 10:10 p.m. on 19 November.

A fresh to strong northeast monsoon affected Hong Kong on 18 November and there were sunny intervals that day. There were also a few light rain patches with the approach of Man-yi. Under the combined effect of the northeast monsoon, Man-yi and the spring tide, water levels in Hong Kong were particularly high on the night of 18 November. The water levels of Quarry Bay, Tai O and Tai Po Kau reached 3.36, 3.36 and 3.52 metres above the Chart Datum respectively and they were all the highest on record for November. After implementation of early preventive measures, only minor flooding occurred in some low-lying areas including the banks of Shing Mun River, Lei Yue Mun, Tai O and Sha Tau Kok. Under the influence of the northeast monsoon and the outer rainbands associated with Man-yi, the local weather was gloomy and rainy on 19 November.

表 3.7.1　在萬宜影響下，本港各站在熱帶氣旋警告信號生效時所錄得的最高陣風、最高每小時平均風速及風向

Table 3.7.1　Maximum gust peak speeds and maximum hourly mean winds with associated wind directions recorded at various stations when the tropical cyclone warning signals for Man-yi were in force

站(參閱圖 1.1) Station (See Fig. 1.1)		最高陣風 Maximum Gust					最高每小時平均風速 Maximum Hourly Mean 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
黃麻角(赤柱)	Bluff Head (Stanley)	東南偏東	ESE	41	18/11	23:42	東南偏東	ESE	21	19/11	00:00
中環碼頭	Central Pier	東北偏北	NNE	36	19/11	06:06	東北偏北	NNE	17	18/11	11:00
長洲	Cheung Chau	北	N	46	19/11	05:25	北	N	28	19/11	06:00
長洲泳灘	Cheung Chau Beach	東北	NE	46	18/11	09:51	東北	NE	33	18/11	12:00
青洲	Green Island	東北偏北	NNE	53	19/11	11:18	北	N	40	19/11	11:00
香港國際機場	Hong Kong International Airport	東北偏北	NNE	39	18/11	10:03	北	N	27	18/11	09:00
							東北偏北	NNE	27	19/11	12:00
啟德	Kai Tak	東北	NE	42	19/11	09:33	東北偏北	NNE	12	18/11	11:00
京士柏	King's Park	北	N	40	19/11	12:49	東北偏北	NNE	19	19/11	07:00
							東北偏北	NNE	19	19/11	13:00
南丫島	Lamma Island	北	N	35	19/11	13:59	北	N	16	19/11	08:00
流浮山	Lau Fau Shan	東北偏北	NNE	44	18/11	08:52	東北偏北	NNE	26	18/11	10:00
昂坪	Ngong Ping	東北偏東	ENE	54	19/11	06:52	東北偏東	ENE	39	19/11	07:00
北角	North Point	東北偏東	ENE	33	18/11	14:21	東北偏東	ENE	19	19/11	11:00
坪洲	Peng Chau	東北偏北	NNE	39	19/11	05:52	西北偏北	NNW	25	19/11	14:00
		北	N	39	19/11	05:53					
		西北偏北	NNW	39	19/11	12:57					
平洲	Ping Chau	東北偏北	NNE	30	19/11	12:57	北	N	7	19/11	13:00
西貢	Sai Kung	東北偏北	NNE	48	19/11	12:03	東北偏北	NNE	25	18/11	11:00
沙洲	Sha Chau	東北偏北	NNE	49	19/11	12:00	北	N	32	19/11	12:00
沙田	Sha Tin	東北偏北	NNE	39	19/11	11:13	東北	NE	14	18/11	10:00
							東北	NE	14	18/11	12:00
							東北	NE	14	19/11	08:00
							東北	NE	14	19/11	12:00
石崗	Shek Kong	東北偏北	NNE	34	18/11	09:19	東北偏北	NNE	17	18/11	10:00
		東北	NE	34	19/11	05:42					
九龍天星碼頭	Star Ferry (Kowloon)	東南偏東	ESE	22	18/11	21:14	東	E	10	18/11	17:00
打鼓嶺	Ta Kwu Ling	東北偏北	NNE	42	18/11	10:21	東北偏北	NNE	18	18/11	11:00
大美督	Tai Mei Tuk	東北	NE	49	19/11	10:46	東北	NE	27	19/11	11:00
大帽山	Tai Mo Shan	東北偏東	ENE	73	19/11	10:25	東北	NE	62	19/11	12:00
大埔滘	Tai Po Kau	東北偏東	ENE	33	18/11	10:36	東	E	15	18/11	11:00
							東南偏東	ESE	15	18/11	21:00
塔門東	Tap Mun East	北	N	44	19/11	05:40	北	N	21	19/11	06:00
大老山	Tate's Cairn	東北	NE	57	19/11	17:44	東北偏北	NNE	44	19/11	06:00
		東北	NE	57	19/11	17:45					
將軍澳	Tseung Kwan O	北	N	34	19/11	11:38	東北偏東	ENE	11	18/11	10:00
							東北	NE	11	19/11	10:00
		東北	NE	34	19/11	12:05	東北偏北	NNE	11	19/11	11:00
							北	N	11	19/11	13:00
青衣島蜆殼油庫	Tsing Yi Shell Oil Depot	北	N	26	18/11	10:42	西北	NW	12	18/11	15:00
屯門政府合署	Tuen Mun Government Offices	東北偏北	NNE	36	18/11	09:31	東北偏北	NNE	12	18/11	12:00
橫瀾島	Waglan Island	東北偏東	ENE	49	18/11	21:34	東北偏東	ENE	43	18/11	23:00
		東北偏東	ENE	49	18/11	22:37					
濕地公園	Wetland Park	東北偏北	NNE	36	19/11	07:48	東北偏北	NNE	8	18/11	11:00
黃竹坑	Wong Chuk Hang	東北偏北	NNE	35	19/11	17:18	西北	NW	10	19/11	14:00

沙螺灣 - 沒有資料　Sha Lo Wan - data not available

表 3.7.2　萬宜影響香港期間，香港天文台總部及其他各站所錄得的日雨量
Table 3.7.2　Daily rainfall amounts recorded at the Hong Kong Observatory Headquarters and other stations during the passage of Man-yi

站 Station			十一月十八日 18 Nov	十一月十九日 19 Nov	總雨量(毫米) Total rainfall (mm)
香港天文台 Hong Kong Observatory (HKO)			微量 Trace	7.3	7.3
香港國際機場 Hong Kong International Airport (HKA)			微量 Trace	29.6	29.6
長洲 Cheung Chau (CCH)			0.0	19.0	19.0
H23	香港仔	Aberdeen	0.0	11.0	11.0
N05	粉嶺	Fanling	0.0	16.5	16.5
N13	糧船灣	High Island	0.0	6.0	6.0
K04	佐敦谷	Jordan Valley	0.0	7.5	7.5
N06	葵涌	Kwai Chung	0.0	6.0	6.0
H12	半山區	Mid Levels	0.0	9.0	9.0
N09	沙田	Sha Tin	0.0	7.5	7.5
H19	筲箕灣	Shau Kei Wan	0.0	8.0	8.0
SEK	石崗	Shek Kong	0.0	7.0	7.0
K06	蘇屋邨	So Uk Estate	0.0	8.5	8.5
R31	大美督	Tai Mei Tuk	0.0	12.5	12.5
R21	踏石角	Tap Shek Kok	0.0	27.0	27.0
N17	東涌	Tung Chung	0.0	27.5	27.5
TMR	屯門水庫	Tuen Mun Reservoir	0.0	19.0	19.0

表 3.7.3　萬宜影響香港期間，香港各潮汐站所錄得的最高水位及最大水位上升
Table 3.7.3　Times and heights of the maximum sea level and the maximum sea level rise recorded at tide stations in Hong Kong during the passage of Man-yi

站 (參閱圖 1.1) Station (See Fig. 1.1)		最高水位 (海圖基準面以上) Maximum sea level (above chart datum)			最大水位上升 (天文潮高度以上)* Maximum sea level rise (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
鰂魚涌	Quarry Bay	3.36	18/11	22:42	0.66	18/11	23:25
石壁	Shek Pik	3.37	18/11	23:09	0.66	19/11	06:22
大廟灣	Tai Miu Wan	3.31	18/11	22:41	0.68	18/11	22:41
大埔滘	Tai Po Kau	3.52	18/11	22:22	0.97	18/11	22:13
尖鼻咀	Tsim Bei Tsui	3.49	19/11	00:03	0.74	19/11	00:58
橫瀾島	Waglan Island	3.25	18/11	22:38	0.48	18/11	22:38

* 水位上升(天文潮高度以上)是基於東北季候風及萬宜的共同影響。
* The sea level rise (above astronomical tide) was due to the combined effect of the northeast monsoon and Man-yi.

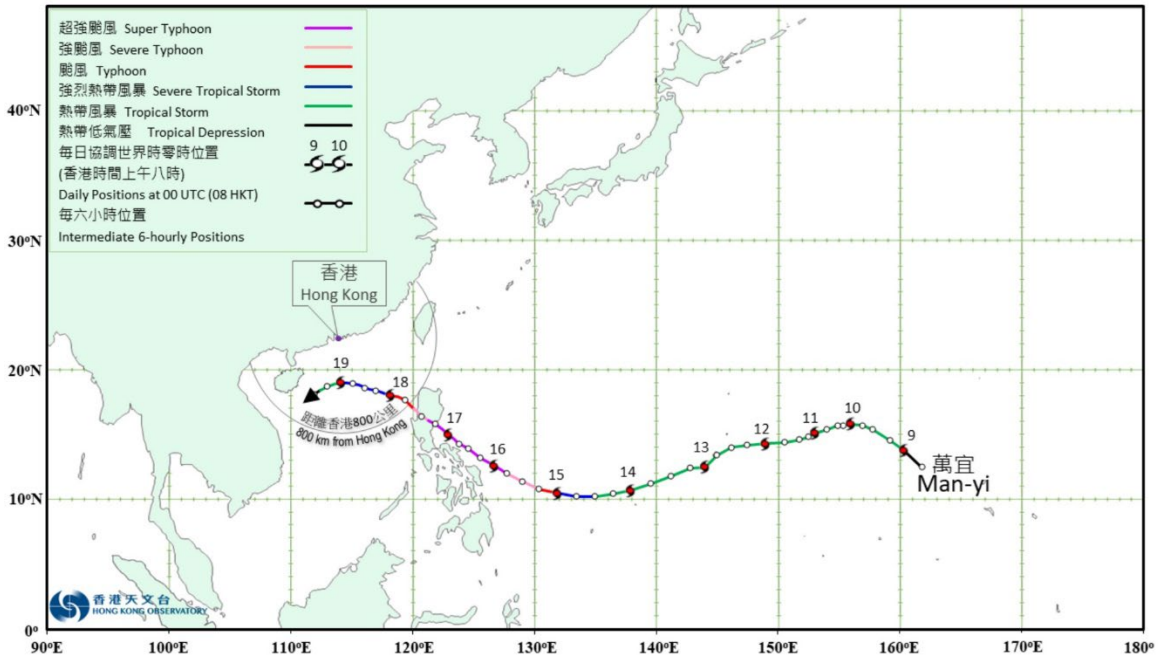

圖 3.7.1　　二零二四年十一月九日至十九日萬宜(2424)的路徑圖。

Figure 3.7.1　Track of Man-yi (2424): 9 – 19 November 2024.

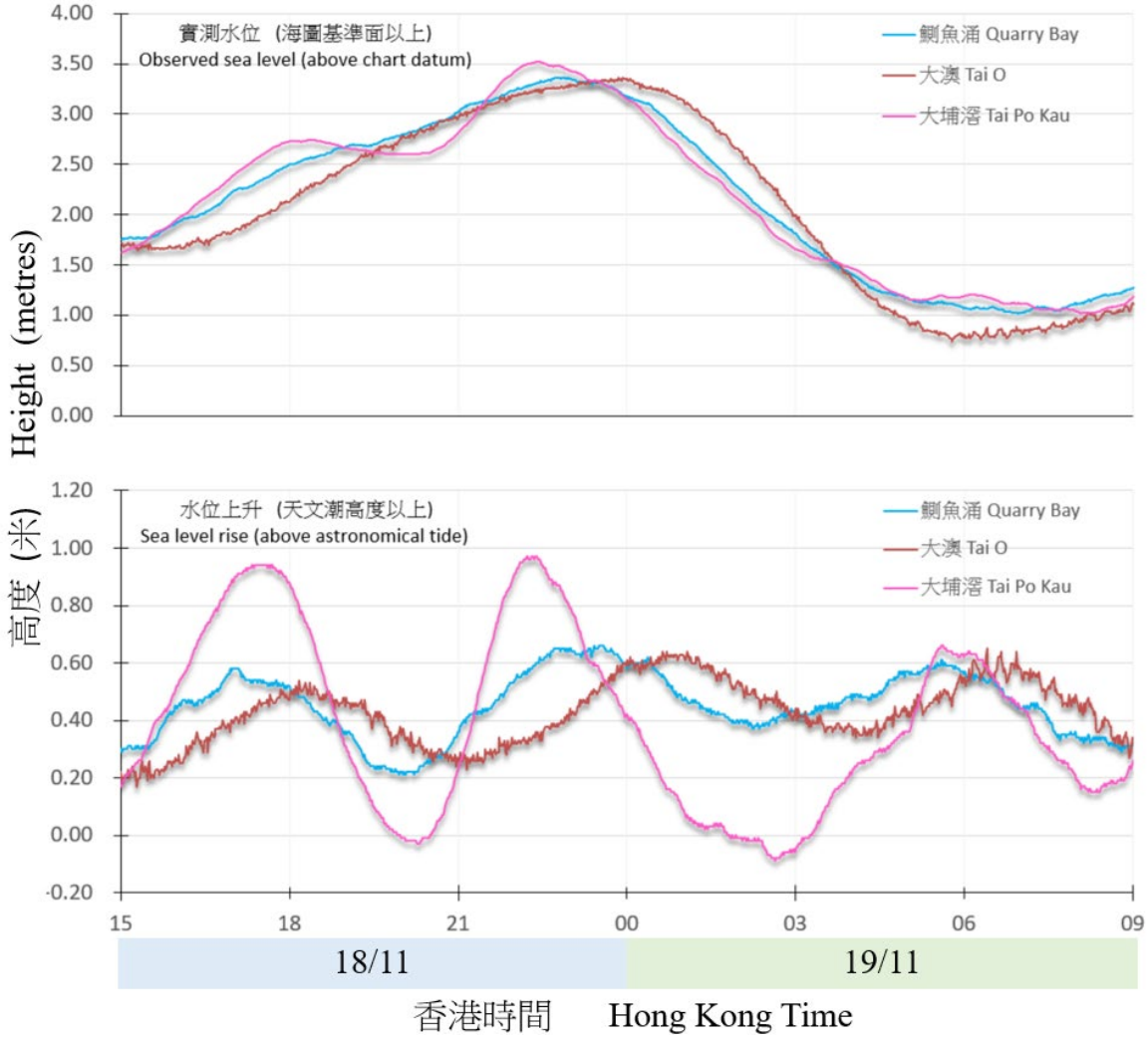

圖 3.7.2　二零二四年十一月十八日至十九日受東北季候風、萬宜及天文大潮的共同影響，在鰂魚涌、大澳#及大埔滘錄得的水位(海圖基準面以上)及水位上升(天文潮高度以上)。

Figure 3.7.2　Traces of sea level (above chart datum) and sea level rise (above astronomical tide) recorded at Quarry Bay, Tai O# and Tai Po Kau under the combined effect of the northeast monsoon, Man-yi and the spring tide on 18 - 19 November 2024.

大澳水位數據由渠務署提供。

The sea level data at Tai O were provided by the Drainage Services Department.

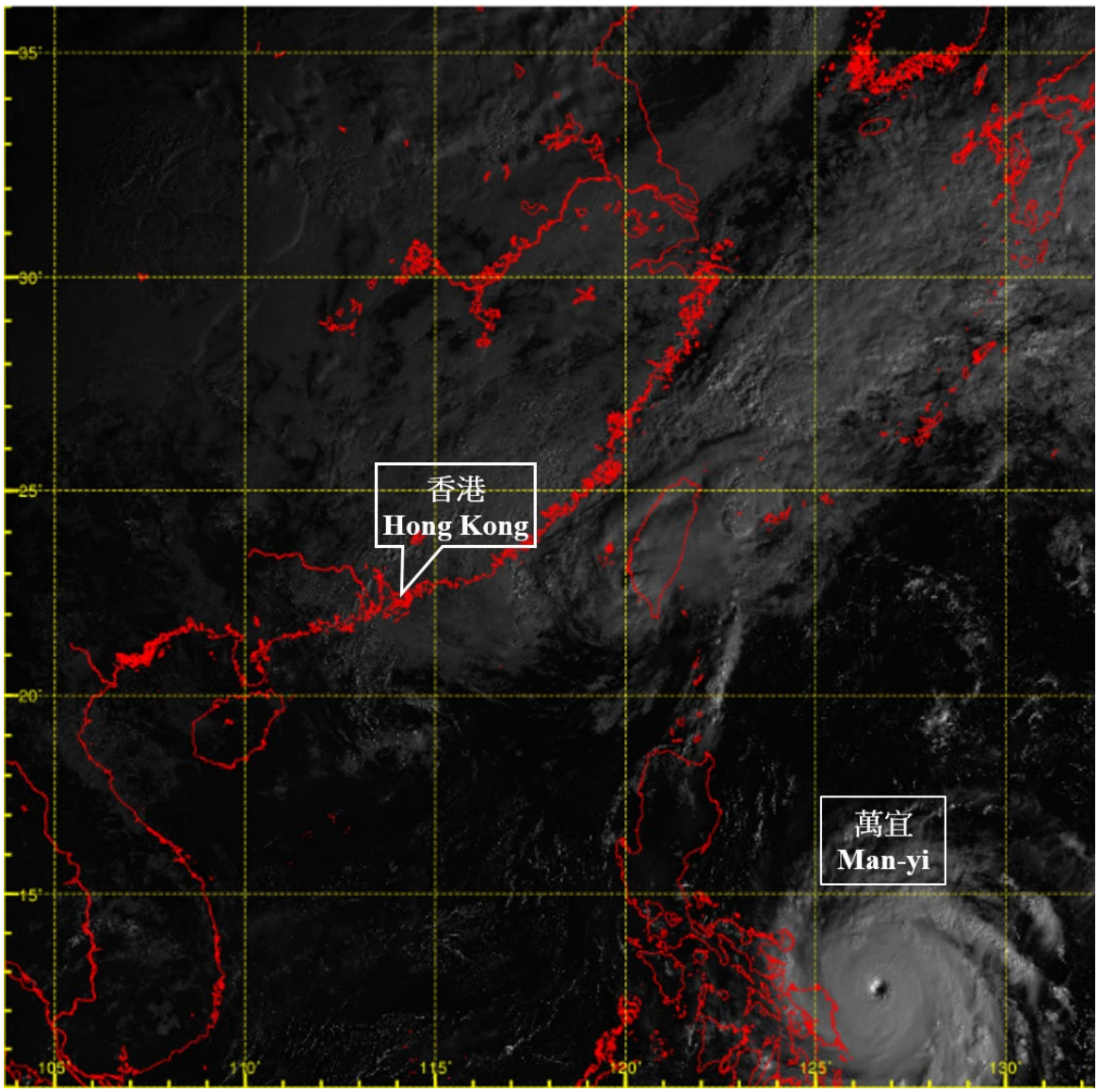

圖 3.7.3　二零二四年十一月十六日上午8時左右的可見光衛星圖片，當時萬宜達到其最高強度，中心附近最高持續風速估計為每小時220公里。

Figure 3.7.3　Visible satellite imagery at around 8 a.m. on 16 November 2024 when Man-yi was at its peak intensity with an estimated maximum sustained wind of 220 km/h near its centre.

〔此衛星圖像接收自日本氣象廳的向日葵9號衛星。〕

[The satellite imagery was originally captured by Himawari-9 Satellite (H-9) of Japan Meteorological Agency (JMA).]

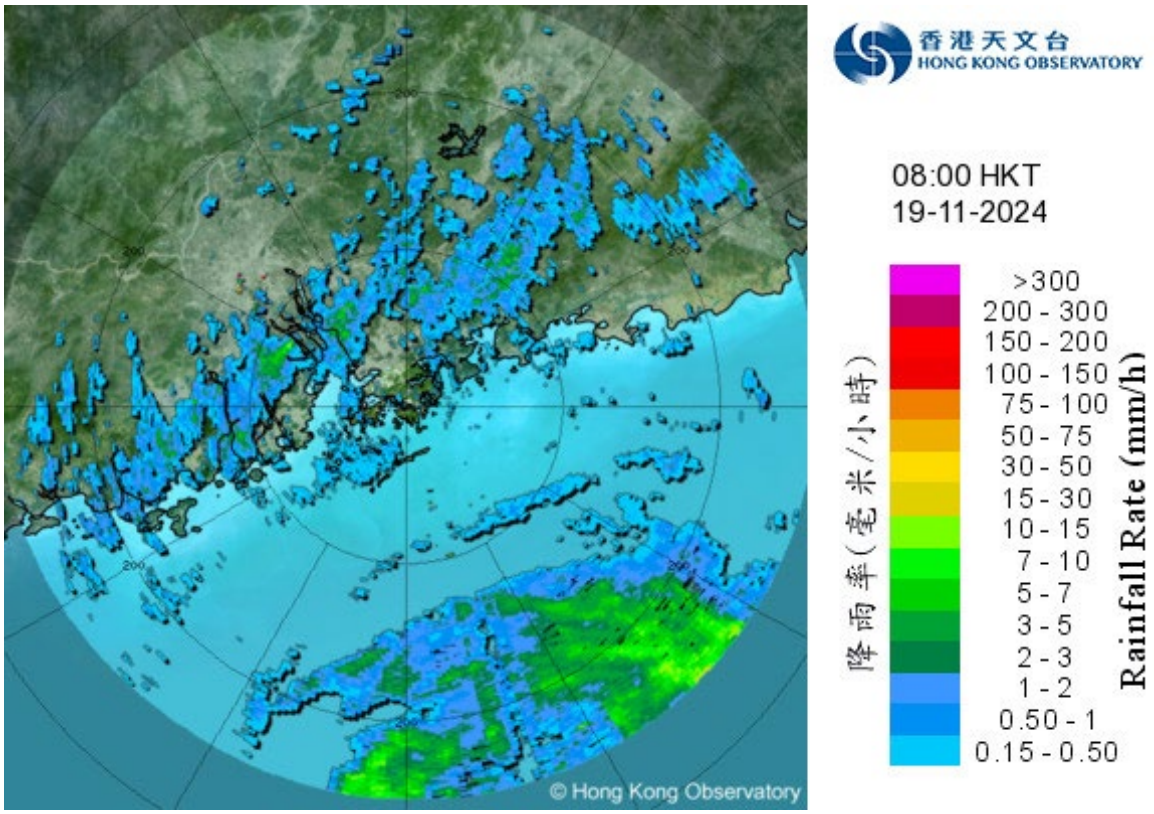

圖 3.7.4　二零二四年十一月十九日上午8時正的雷達回波圖像。當時萬宜最接近本港，位置在香港以南約370公里。同時，與萬宜相關的外圍雨帶正影響廣東沿岸及南海北部。

Figure 3.7.4　Radar echoes captured at 8:00 a.m. on 19 November 2024. Man-yi came closest to Hong Kong at that time, skirting past about 370 km south of the territory. Meanwhile, the outer rainbands associated with Man-yi were affecting the coast of Guangdong and the northern part of the SCS.

圖 3.7.5　二零二四年十一月十八日晚間城門河旁的單車徑出現輕微水浸。(鳴謝：岳人 Geo Trekker)

Figure 3.7.5　Minor flooding over the cycle tracks near Shing Mun River on the night of 18 November 2024. (Courtesy of 岳人 Geo Trekker)

圖 3.7.6　二零二四年十一月十八日晚間大澳出現輕微水浸。(鳴謝：離島民政事務處)

Figure 3.7.6　Minor flooding in Tai O on the night of 18 November 2024. (Courtesy of Islands District Office)

第四節　　熱帶氣旋統計表

表4.1是二零二四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。表內所列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是天文台在二零二四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是二零二四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生效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是一九五六至二零二四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是一九五六至二零二四年間每年位於香港責任範圍內以及每年引致天文台需要發出熱帶氣旋警告信號的熱帶氣旋總數。

表4.6是一九五六至二零二四年間天文台發出各種熱帶氣旋警告信號的最長、最短及平均時段。

表4.7是二零二四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、香港國際機場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是二零二四年位於香港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二零二四年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是自一九四六年至二零二四年間，天文台發出十號颶風信號時所錄得的氣象資料，包括熱帶氣旋吹襲香港時的最近距離及方位、天文台錄得的最低平均海平面氣壓、香港各站錄得的最高60分鐘平均風速和最高陣風。

表4.10是二零二四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、本地報章的報導及香港保險業聯會提供的數據。

表4.11是一九六零至二零二四年間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。

表4.12是二零二四年天文台發出的熱帶氣旋路徑預測驗証。

Section 4 TROPICAL CYCLONE STATISTICS AND TABLES

TABLE 4.1 is a list of tropical cyclones in 2024 in the WNP and the SCS (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 2024, 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 issuing of tropical cyclone warning signals in 2024. 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 issuing of tropical cyclone warning signals from 1956 to 2024 inclusive.

TABLE 4.5 gives the annual number of tropical cyclones in Hong Kong's area of responsibility between 1956 and 2024 and also the annual number of tropical cyclones necessitated the issuing of tropical cyclone warning signals in Hong Kong.

TABLE 4.6 shows the maximum, mean and minimum durations of the tropical cyclone warning signals issued during the period 1956 – 2024.

TABLE 4.7 is a summary of meteorological information for each tropical cyclone affecting Hong Kong in 2024, including the position, time and the estimated minimum central pressure of each tropical cyclone during its closest approach to Hong Kong, the maximum winds at King’s Park, Hong Kong International Airport 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.

TABLE 4.8.1 tabulates the amount of rainfall associated with each tropical cyclone that came within 600 km of Hong Kong in 2024.

TABLE 4.8.2 highlights the 10 wettest tropical cyclones in Hong Kong for the period 1884 – 1939 and 1947 – 2024.

TABLE 4.9 provides some meteorological information for those typhoons requiring the issuing of the Hurricane Signal No. 10 in Hong Kong from 1946 to 2024. 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 2024. The information is based on reports from various government departments, public utility companies, local newspapers and data provided by the Hong Kong Federation of Insurers.

TABLE 4.11 presents casualties and damage caused by tropical cyclones in Hong Kong: 1960 – 2024. The information is based on reports from various government departments, public utility companies and local newspapers.

TABLE 4.12 shows verification of the tropical cyclone track forecasts issued by the Hong Kong Observatory in 2024.

表 4.1　　二零二四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 2024

熱帶氣旋名稱	Name of tropical cyclone	編號 Code	路徑起點 Beginning of track				最高強度 (估計) Peak intensity (estimated)		路徑終點 End of track				DISP: 消散 Dissipated XT: 變為溫帶氣旋 Became Extratropical
			日期/月份 Date/Month	時間+ Time+	位置 Position 北緯 °N	東經 °E	風力 (公里每小時) Winds (km/h)	氣壓 (百帕斯卡) Pressure (hPa)	日期/月份 Date/Month	時間+ Time+	位置 Position 北緯 °N	東經 °E	
颱風艾雲尼	Typhoon Ewiniar	2401	24 / 05	0000	8.4	127.5	140	965	30 / 05	0000	28.1	134.9	XT
熱帶風暴馬力斯	Tropical Storm Maliksi	2402	30 / 05	0900	16.8	112.2	65	996	01 / 06	0600	23.3	112.5	DISP
熱帶低氣壓	Tropical Depression	-	13 / 07	0900	13.4	112.7	45	998	15 / 07	0900	17.0	107.3	DISP
強烈熱帶風暴派比安	Severe Tropical Storm Prapiroon	2404	19 / 07	0600	14.4	117.6	105	980	23 / 07	0900	21.7	107.3	DISP
超強颱風格美	Super Typhoon Gaemi	2403	19 / 07	1200	13.3	131.0	195	935	27 / 07	1800	30.0	114.6	DISP
強烈熱帶風暴瑪莉亞	Severe Tropical Storm Maria	2405	06 / 08	1800	25.5	140.9	110	978	12 / 08	1800	41.0	139.6	DISP
熱帶風暴山神	Tropical Storm Son-Tinh	2406	10 / 08	1200	26.9	153.3	65	998	13 / 08	1200	37.1	146.0	DISP
強颱風安比	Severe Typhoon Ampil	2407	12 / 08	0000	22.7	135.7	175	945	18 / 08	1800	43.2	160.9	XT
熱帶風暴悟空	Tropical Storm Wukong	2408	12 / 08	0600	25.6	148.8	65	998	15 / 08	0600	37.3	147.2	XT
熱帶風暴雲雀	Tropical Storm Jongdari	2409	18 / 08	0000	24.3	126.1	75	995	21 / 08	0000	37.7	125.9	DISP
超強颱風珊珊	Super Typhoon Shanshan	2410	21 / 08	0600	16.4	143.4	185	940	01 / 09	0000	33.2	136.9	DISP
超強颱風摩羯	Super Typhoon Yagi	2411	01 / 09	0300	12.7	125.8	230	915	08 / 09	0600	21.5	104.2	DISP
熱帶低氣壓霍恩	Tropical Depression Hone	-	03 / 09	0000	27.6	179.4	55	1002	03 / 09	1800	29.8	178.1	DISP
熱帶風暴麗琵	Tropical Storm Leepi	2412	03 / 09	0000	24.8	147.3	65	1000	06 / 09	1200	37.9	151.1	XT
颱風貝碧嘉	Typhoon Bebinca	2413	10 / 09	0000	10.9	146.7	145	960	17 / 09	1200	33.1	115.9	DISP
熱帶風暴普拉桑	Tropical Storm Pulasan	2414	15 / 09	1200	12.9	144.2	85	988	21 / 09	0000	33.3	123.3	XT
熱帶風暴蘇力	Tropical Storm Soulik	2415	16 / 09	0000	17.2	125.1	65	994	19 / 09	1800	17.0	105.7	DISP
熱帶低氣壓	Tropical Depression	-	22 / 09	0000	24.9	119.8	55	1000	22 / 09	0900	24.3	118.8	DISP
熱帶風暴西馬侖	Tropical Storm Cimaron	2416	23 / 09	1200	28.7	131.3	65	998	27 / 09	0000	28.5	132.2	DISP
強烈熱帶風暴飛燕	Severe Tropical Storm Jebi	2417	26 / 09	0000	15.9	147.3	110	980	02 / 10	0600	45.1	153.3	XT
超強颱風山陀兒	Super Typhoon Krathon	2418	26 / 09	1200	21.8	127.6	220	920	03 / 10	1800	22.7	120.7	DISP
熱帶風暴百里嘉	Tropical Storm Barijat	2419	06 / 10	0000	16.7	145.6	65	998	10 / 10	1800	39.5	154.0	XT
颱風潭美	Typhoon Trami	2420	20 / 10	1800	13.3	133.6	120	975	28 / 10	0000	15.7	108.0	DISP
超強颱風康妮	Super Typhoon Kong-rey	2421	24 / 10	0600	13.7	148.5	210	925	01 / 11	0900	29.6	122.4	XT
超強颱風銀杏	Super Typhoon Yinxing	2422	03 / 11	0000	8.9	138.9	220	920	12 / 11	0300	14.2	109.5	DISP
超強颱風萬宜	Super Typhoon Man-yi	2424	08 / 11	1800	12.5	161.8	220	920	19 / 11	1500	17.9	111.7	DISP
颱風桃芝	Typhoon Toraji	2423	09 / 11	0000	14.4	132.8	130	970	14 / 11	1800	21.1	113.2	DISP
超強颱風天兔	Super Typhoon Usagi	2425	11 / 11	0000	11.9	139.9	205	930	16 / 11	0300	22.2	120.4	DISP
熱帶低氣壓帕布	Tropical Depression Pabuk	2426	22 / 12	1200	10.4	113.5	55	1000	25 / 12	0600	9.7	110.3	DISP

+時間為協調世界時。

+Times are given in UTC.

表 4.2　　二零二四年為船舶發出的熱帶氣旋警告

TABLE 4.2　TROPICAL CYCLONE WARNINGS FOR SHIPPING ISSUED IN 2024

熱帶氣旋名稱	Name of 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				時段 (小時) Duration (hours)
			首次警告 First warning		末次警告 Last warning		
			日期/月份 Date/Month	時間+ Time+	日期/月份 Date/Month	時間+ Time+	
颱風艾雲尼	Typhoon Ewiniar	31	25 / 5	0000	28 / 5	0000	72
* 熱帶風暴馬力斯	* Tropical Storm Maliksi	18	30 / 5	0900	1 / 6	0900	48
熱帶低氣壓	Tropical Depression	19	13 / 7	0900	15 / 7	1200	51
* 強烈熱帶風暴派比安	* Severe Tropical Storm Prapiroon	35	19 / 7	0600	23 / 7	0600	96
超強颱風格美	Super Typhoon Gaemi	27	23 / 7	0900	26 / 7	0600	69
* 超強颱風摩羯	* Super Typhoon Yagi	55	1 / 9	1200	8 / 9	0000	156
熱帶風暴蘇力	Tropical Storm Soulik	20	17 / 9	0600	19 / 9	1200	54
熱帶風暴普拉桑	Tropical Storm Pulasan	3	19 / 9	0600	19 / 9	1200	6
熱帶低氣壓	Tropical Depression	6	22 / 9	0000	22 / 9	1200	12
超強颱風山陀兒	Super Typhoon Krathon	43	29 / 9	1800	3 /10	1800	96
* 颱風潭美	* Typhoon Trami	43	22 /10	2100	28 /10	0300	126
超強颱風康妮	Super Typhoon Kong-rey	21	30 /10	0000	1 /11	1200	60
* 超強颱風銀杏	* Super Typhoon Yinxing	52	6 /11	0000	12 /11	0600	150
* 颱風桃芝	* Typhoon Toraji	38	10 /11	0900	14 /11	2100	108
超強颱風天兔	Super Typhoon Usagi	22	13 /11	1500	16 /11	0600	63
* 超強颱風萬宜	* Super Typhoon Man-yi	28	16 /11	1200	19 /11	1800	78
熱帶低氣壓帕布	Tropical Depression Pabuk	24	22 /12	1500	25 /12	0900	66
	共 Total	485					1230

* 這些熱帶氣旋引致天文台需要發出熱帶氣旋警告信號。

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

+ 時間為協調世界時。

+ Times are given in UTC.

表 4.3　　二零二四年天文台所發出的熱帶氣旋警告信號及警報發出的次數

TABLE 4.3　TROPICAL CYCLONE WARNING SIGNALS ISSUED IN HONG KONG AND NUMBER OF WARNING BULLETINS ISSUED IN 2024

摘要 SUMMARY

信號 Signal	次數 No. of occasions	總時段 Total duration	
		時 h	分 min
1	11	236	30
3	7	114	10
8 西北 NW	0	0	0
8 西南 SW	0	0	0
8 東北 NE	2	29	30
8 東南 SE	0	0	0
9	0	0	0
10	0	0	0
共 Total	20	380	10

詳情 DETAILS

熱帶氣旋名稱 Name of tropical cyclone	警報發出的次數 No. of warning bulletins issued	信號 Signal	發出 Issued		取消 Cancelled	
			日期/月份 Date/Month	時間* Time*	日期/月份 Date/Month	時間* Time*
熱帶風暴馬力斯 Tropical Storm Maliksi	51	1 3 1	30/05 31/05 01/06	17:40 16:40 16:40	31/05 01/06 01/06	16:40 16:40 17:40
強烈熱帶風暴派比安 Severe Tropical Storm Prapiroon	39	1	20/07	22:40	22/07	12:20
超強颱風摩羯 Super Typhoon Yagi	89	1 3 8 東北 NE 3	03/09 04/09 05/09 06/09	17:40 18:40 18:20 12:40	04/09 05/09 06/09 07/09	18:40 18:20 12:40 04:20
颱風潭美 Typhoon Trami	52	1 3 1	25/10 26/10 26/10	01:40 10:40 22:20	26/10 26/10 27/10	10:40 22:20 00:20
超強颱風銀杏 Super Typhoon Yinxing	54	1 3 1	08/11 09/11 10/11	12:40 15:40 10:20	09/11 10/11 10/11	15:40 10:20 15:20
颱風桃芝 Typhoon Toraji	85	1 3 8 東北 NE 3 1	11/11 13/11 13/11 14/11 14/11	22:20 14:40 23:10 10:20 22:20	13/11 13/11 14/11 14/11 15/11	14:40 23:10 10:20 22:20 01:20
超強颱風萬宜 Super Typhoon Man-yi	41	1	18/11	06:40	19/11	22:10

* 香港時間（協調世界時加八小時）　　* Hong Kong Time (UTC + 8 hours)

表 4.4　　一九五六至二零二四年間每年各熱帶氣旋警告信號的發出次數及總時段

TABLE 4.4　　FREQUENCY AND TOTAL DURATION OF DISPLAY OF TROPICAL CYCLONE WARNING SIGNALS : 1956 – 2024

信號 Signals / 年份 Year	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	191	25
1957	4	9	1	1	2	2	0	1	295	45
1958	4	5	0	0	1	0	0	0	214	5
1959	1	1	0	0	0	0	0	0	36	35
1960	11	7	0	2	2	2	1	1	432	35
1961	6	7	1	2	1	0	1	1	192	55
1962	4	3	0	1	1	0	1	1	158	10
1963	4	5	0	0	1	0	0	0	175	50
1964	11	14	1	3	5	3	3	2	570	15
1965	7	6	0	0	1	1	0	0	239	40
1966	6	5	0	0	2	2	0	0	284	40
1967	8	6	0	0	2	1	0	0	339	10
1968	7	7	0	1	1	0	1	1	290	10
1969	4	2	0	0	0	0	0	0	110	15
1970	6	8	2	1	2	0	0	0	286	45
1971	9	10	1	3	2	2	1	1	323	25
1972	8	6	0	0	1	1	0	0	288	20
1973	8	6	1	1	1	0	1	0	416	50
1974	12	10	0	0	2	1	1	0	525	20
1975	8	6	1	0	0	1	1	1	292	20
1976	6	6	0	0	1	2	0	0	351	30
1977	8	6	0	0	1	0	0	0	395	10
1978	8	9	1	1	3	2	0	0	462	10
1979	5	5	1	0	2	2	1	1	281	15
1980	10	8	0	0	1	1	0	0	414	5
1981	5	4	0	0	1	1	0	0	202	20
1982	7	4	0	0	0	0	0	0	247	35
1983	8	7	0	1	2	2	1	1	289	42
1984	6	6	0	0	1	0	0	0	280	2
1985	5	4	1	0	0	1	0	0	193	35
1986	6	7	0	1	1	0	0	0	305	0
1987	6	1	0	0	0	0	0	0	165	45
1988	6	4	0	0	0	0	0	0	204	10
1989	7	8	0	0	2	2	0	0	306	10
1990	6	4	0	0	0	0	0	0	245	10
1991	8	6	0	0	1	1	0	0	349	55
1992	5	5	0	0	1	1	0	0	167	5
1993	8	9	0	0	2	4	0	0	325	40
1994	4	3	0	0	0	0	0	0	138	10
1995	8	6	2	2	1	1	0	0	348	50
1996	7	2	0	0	0	1	0	0	189	0
1997	2	3	0	1	1	0	1	0	97	30
1998	5	2	0	0	0	0	0	0	188	35
1999	10	13	4	3	2	0	2	1	520	0
2000	7	3	0	0	0	0	0	0	329	5
2001	6	6	1	1	2	1	0	0	253	35
2002	3	2	0	0	0	1	0	0	144	25
2003	4	5	1	1	1	1	1	0	158	0
2004	3	2	1	1	1	0	0	0	77	35
2005	3	1	0	0	0	0	0	0	142	45
2006	10	3	0	0	0	0	0	0	317	50
2007	4	3	0	1	0	0	0	0	86	50
2008	8	9	2	2	3	2	1	0	347	0
2009	13	9	1	1	1	2	1	0	255	30
2010	8	3	0	0	0	0	0	0	220	0
2011	8	5	0	0	0	1	0	0	213	0
2012	9	7	0	0	2	3	1	1	252	45
2013	10	7	1	1	0	1	0	0	292	50
2014	6	3	0	0	0	1	0	0	145	45
2015	4	3	1	0	0	0	0	0	136	50
2016	11	7	2	2	0	0	0	0	283	0
2017	12	11	2	1	3	2	1	1	259	40
2018	12	7	0	0	1	1	1	1	422	25
2019	7	3	0	0	1	0	0	0	177	25
2020	6	7	0	0	2	1	1	0	194	45
2021	9	6	0	0	1	1	0	0	282	50
2022	8	8	1	0	2	3	0	0	315	10
2023	8	6	1	0	3	2	2	1	349	40
2024	11	7	0	0	2	0	0	0	380	10
共 Total	479	392	31	35	75	60	25	16	18371	44
平均 Mean	6.9	5.7	0.4	0.5	1.1	0.9	0.4	0.2	266	15

表 4.5 一九五六至二零二四年間每年位於香港責任範圍內以及每年引致天文台需要發出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 – 2024

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	每年引致天文台需要發出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	20	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
1998	15	5
1999	12	8
2000	20	7
2001	14	6
2002	10	3
2003	12	4
2004	15	3
2005	15	3
2006	16	7
2007	12	2
2008	17	6
2009	17	8
2010	11	5
2011	12	5
2012	14	5
2013	19	7
2014	10	4
2015	13	3
2016	15	9
2017	22	7
2018	17	6
2019	15	5
2020	18	5
2021	17	8
2022	13	6
2023	10	5
2024	17	7
平均 Mean	15.6	5.9

表 4.6　一九五六至二零二四年間天文台發出熱帶氣旋警告信號的時段

TABLE 4.6　DURATION OF TROPICAL CYCLONE WARNING SIGNALS ISSUED IN HONG KONG : 1956 – 2024

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 h min	時 分 h min	時 分 h min	時 分 h min	時 分 h min	時 分 h min
一號或以上 1 or higher	424	43 20	161 0 (桃麗達 Tilda, 1964)	4 30 (熱帶低氣壓 T.D., 2000)	266 15	570 15 (1964)	36 35 (1959)
三號或以上 3 or higher	285	29 30	124 15 (瑪麗 Mary, 1960)	4 5 (熱帶低氣壓 T.D., 2006)	121 52	306 35 (1974)	15 5 (2004)
八號或以上 8 or higher	109	14 54	66 50 (瑪麗 Mary, 1960)	2 40 (雲茜 Wynne, 1984)	23 33	100 55 (1964)	0 0
8 西北 NW	31	6 10	15 45	1 30	2 46	18 0	0 0
8 西南 SW	35	4 58	10 45	2 0	2 31	16 10	0 0
8 東北 NE	75	7 60	35 35	1 35	8 42	40 20	0 0
8 東南 SE	60	7 57	22 0	0 20	6 55	31 30	0 0
九號或以上 9 or higher	26	7 3	12 25 (約克 York, 1999)	2 0 (杜鵑 Dujuan, 2003)	2 39	19 25 (1964)	0 0
十號 10	16	6 30	11 0 (約克 York, 1999)	2 30 (愛麗斯 Alice, 1961)	1 30	12 10 (1964)	0 0

註：( ) 內為創造該記錄的熱帶氣旋名稱及年份。

Note: ( ) are the years and the names of the tropical cyclones which created the record.

表 4.7　　二零二四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 2024

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海平面氣壓(百帕斯卡) Minimum M.S.L. pressure (hPa) 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*	瞬時 Inst. / 每小時 Hourly	鰂魚涌 Quarry Bay	石壁 Shek Pik	大廟灣 Tai Miu Wan	大埔滘 Tai Po Kau	尖鼻咀 Tsim Bei Tsui	橫瀾島 Waglan Island
熱帶風暴馬力斯 Tropical Storm Maliksi	6	1	14:00	西北偏西 WNW	200	32 東北 NE	1000	5	30	17:40 - 17:48#	1005.1	0.30	0.28	0.27	0.51	0.34	0.17
									30	18:00	1005.3						
									31	04:00							
強烈熱帶風暴派比安 Severe Tropical Storm Prapiroon	7	22	02:00	西南 SW	570	26 西北 NW	984	7	22	03:43 - 05:22#	1005.2	0.27	0.21	0.24	0.27	0.30	0.15
										04:00	1005.2						
超強颱風摩羯 Super Typhoon Yagi	9	5	20:00	南 S	330	20 西 W	925	9	5	15:33 - 15:35#	997.3	0.57	0.57	0.49	0.67	0.54	0.39
										16:00	997.7						
颱風潭美 Typhoon Trami	10	26	02:00	南 S	550	28 西南偏西 WSW	980	10	25	15:17 - 16:12#	1004.2	0.60	0.61	0.65	0.72	0.63	0.46
									26	04:14 - 04:45#							
									25	16:00	1004.2						
超強颱風銀杏 Super Typhoon Yinxing	11	9	20:00	南 S	360	8 西 W	940	11	9	14:49 - 16:15#	1012.3	0.40	0.43	0.41	0.60	0.47	0.26
										16:00	1012.3						
颱風桃芝 Typhoon Toraji	11	14	05:00	南 S	130	8 西 W	992	11	14	03:29 - 04:31#	1007.8	0.40	0.40	0.46	0.65	0.47	0.24
										04:00	1008.0						
超強颱風萬宜 Super Typhoon Man-yi	11	19	08:00	南 S	370	18 西南偏西 WSW	992	11	18	15:38 - 15:41#	1015.1	0.66+	0.66+	0.68+	0.97+	0.74+	0.48+
										15:00, 16:00	1015.3						

* 香港時間（協調世界時加八小時）　　* Hong Kong Time (UTC + 8 hours)

\# 最初及最後錄得的時間　　\# First and last time recorded

\+ 水位上升(天文潮高度以上)是基於東北季候風及萬宜的共同影響。

\+ The sea level rise (above astronomical tide) was due to the combined effect of the northeast monsoon and Man-yi.

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		香港國際機場 Hong Kong International Airport		橫瀾島 Waglan Island		京士柏 King's Park		香港國際機場 Hong Kong International Airport		橫瀾島 Waglan Island		京士柏 King's Park		香港國際機場 Hong Kong International Airport		橫瀾島 Waglan Island	
熱帶風暴馬力斯 Tropical Storm Maliksi	6	西南 SW	22	西南 SW	43	西南 SW	48	西南 SW	25	西南 SW	48	東南 SE	51	西南偏西 WSW	53	南 S	61	東南偏東, 東南 ESE, SE	66
強烈熱帶風暴派比安 Severe Tropical Storm Prapiroon	7	東南偏東 ESE	19	東南偏東 ESE	24	東 E	33	東南偏東 ESE	22	東南偏東 ESE	43	東北偏東 ENE	35	東 E	45	東南偏東 ESE	55	東 E	40
超強颱風摩羯 Super Typhoon Yagi	9	東北偏東, 東 ENE, E	28	東北, 東 NE, E	38	東北偏東 ENE	80	東南偏東 ESE	33	東北 NE	54	東北偏東 ENE	87	東北 NE	77	東 E	78	東北偏東 ENE	103
颱風潭美 Typhoon Trami	10	東北偏北 NNE	21	東北偏北 NNE	32	東北 NE	49	東北偏北 NNE	23	東北偏北 NNE	34	東北 NE	51	東北偏北 NNE	48	東北偏北 NNE	43	東北 NE	59
超強颱風銀杏 Super Typhoon Yinxing	11	東 E	19	東北偏東 ENE	25	東北偏東 ENE	63	東 E	23	東北偏東 ENE	32	東北偏東 ENE	66	東 E	50	東北偏東 ENE	41	東北偏東 ENE	73
颱風桃芝 Typhoon Toraji	11	東北 NE	27	北 N	27	東北偏東 ENE	75	風向不定 Variable	33	東北偏北 NNE	30	東北偏東 ENE	78	東北偏東 ENE	69	東 E	45	東北偏東 ENE	93
超強颱風萬宜 Super Typhoon Man-yi	11	東北偏北 NNE	19	東北偏北 NNE	27	東北偏東 ENE	43	東北偏北 NNE	24	東北偏北 NNE	30	東北偏東 ENE	45	北 N	40	東北偏北 NNE	39	東北偏東 ENE	49

表 4.8.1　二零二四年位於香港600公里範圍內的熱帶氣旋及其為本港帶來的雨量期間，天文台錄得的雨量

TABLE 4.8.1　RAINFALL ASSOCIATED WITH EACH TROPICAL CYCLONE THAT CAME WITHIN 600 KM OF HONG KONG IN 2024

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_1 → T_2) 日期/月份 Date/Month　時間* 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_1 → T_2)	(ii) 在 T_2 之後 的24小時內 24-hour period after T_2	(iii) 在 T_2 之後 的48小時內 48-hour period after T_2	(iv) 在 T_2 之後 的72小時內 72-hour period after T_2	(i) + (iv) 共 Total T_1 → (T_2+72 小時 hours)
熱帶風暴馬力斯 Tropical Storm Maliksi	(T_1) 30 / 5 2000 - (T_2) 1 / 6 1400	49.4	24.0	29.8	35.4	84.8
強烈熱帶風暴派比安 Severe Tropical Storm Prapiroon	(T_1) 21 / 7 2000 - (T_2) 22 / 7 0800	2.0	0.2	0.2	0.2	2.2
超強颱風格美 # Super Typhoon Gaemi #	(T_1) 25 / 7 2200 - (T_2) 26 / 7 0600	2.4	2.4	48.9	107.4	109.8
超強颱風摩羯 Super Typhoon Yagi	(T_1) 3 / 9 2200 - (T_2) 7 / 9 0400	142.7	35.1	42.6	55.6	198.3
熱帶低氣壓 # Tropical Depression #	(T_1) 22 / 9 1100 - (T_2) 22 / 9 1700	22.7	21.2	109.1	114.5	137.2
超強颱風山陀兒 # Super Typhoon Krathon #	(T_1) 1 / 10 0600 - (T_2) 3 / 10 0800	0.0	0.0	0.0	0.0	0.0
颱風潭美 Typhoon Trami	(T_1) 25 /10 1500 - (T_2) 26 /10 1000	0.0	0.7	0.7	0.7	0.7
超強颱風銀杏 Super Typhoon Yinxing	(T_1) 8 /11 1400 - (T_2) 11 /11 0600	8.1	0.0	0.0	17.1 +	25.2
颱風桃芝 Typhoon Toraji	(T_1) 12 /11 0900 - (T_2) 15 /11 0200	26.7 +	31.0 ++	64.9 ++	70.4 ++	97.1
超強颱風天兔 # Super Typhoon Usagi #	(T_1) 15 /11 1000 - (T_2) 16 /11 0200	6.5 ++	33.9 ++	39.4 ++	39.4 +++	45.9
超強颱風萬宜 Super Typhoon Man-yi	(T_1) 18 /11 1000 - (T_2) 19 /11 2300	5.9 +++	75.2	80.8	80.8	86.7
					共@ Total@	724.9

* 香港時間（協調世界時加八小時）

\# 該熱帶氣旋並未導致天文台需要發出熱帶氣旋警告信號。

T_1 熱帶氣旋首次出現於香港600公里範圍內的時間。

T_2 熱帶氣旋在香港600公里範圍內消散或離開該範圍的時間。

\+ 颱風桃芝的雨量與超強颱風銀杏的雨量出現了17.1毫米的重疊部份。

++ 超強颱風天兔的雨量與颱風桃芝的雨量出現了45.9毫米的重疊部份。

+++ 超強颱風萬宜的雨量與超強颱風天兔的雨量出現了微量的重疊部份。

@ 已減去重疊的雨量

* Hong Kong Time (UTC + 8 hours)

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

T_1 The time when a tropical cyclone was first centred within 600 km of Hong Kong.

T_2 The time when a tropical cyclone had dissipated within or moved outside 600 km of Hong Kong.

\+ Rainfall amount of Typhoon Toraji overlapped the rainfall amount of Super Typhoon Yinxing by 17.1 mm.

++ Rainfall amount of Super Typhoon Usagi overlapped the rainfall amount of Typhoon Toraji by 41.8 mm.

+++ Rainfall amount of Super Typhoon Man-yi overlapped the rainfall amount of Super Typhoon Usagi by trace.

@ The overlapped rainfall amounts have been deducted from the total.

表 4.8.2　一八八四至一九三九年及一九四七至二零二四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 – 2024)

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 ($T_1 \rightarrow T_2$)	(ii) 在 T_2 之後的 24 小時內 24-hour period after T_2	(iii) 在 T_2 之後的 48 小時內 48-hour period after T_2	(iv) 在 T_2 之後的 72 小時內 72-hour period after T_2	(i) + (iv) 共 Total $T_1 \rightarrow$ (T_2+72 小時 hours)
2023	9	海葵 Haikui	0.4 ++	0.0	5.8	640.7	641.1
1999	8	森姆 Sam	368.1	178.9	248.1	248.4	616.5
1926	7	熱帶氣旋 T.C.	34.8 #	534.0 #	561.1 #	562.2 #	597.0
1916	6	熱帶氣旋 T.C.	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
2016	10	莎莉嘉 Sarika	195.6	223.2	223.2	295.7+	491.3

T_1 - 熱帶氣旋首次出現於香港600公里範圍內的時間。

T_2 - 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。

\+ 當中的72.5毫米雨量與超強颱風海馬重疊出現。

++ 當中的0.4毫米雨量與超強颱風蘇拉重疊出現。

T_1 - The time when a tropical cyclone was first centred within 600 km of Hong Kong.

T_2 - The time when a tropical cyclone had 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.

\+ 72.5 mm of rainfall overlapped with the rainfall of Super Typhoon Haima.

++ 0.4 mm of rainfall overlapped with the rainfall of Super Typhoon Saola.

表 4.9　　一九四六至二零二四年間引致天文台需要發出十號颶風信號的颱風

TABLE 4.9　TYPHOONS REQUIRING THE ISSUING OF THE HURRICANE SIGNAL NO. 10 DURING THE PERIOD 1946 – 2024

颱風名稱 Name of typhoon	當最接近天文台時 Nearest approach to the Hong Kong Observatory			最低平均海平面氣壓(百帕斯卡) Minimum M.S.L. pressure (hPa)		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							最高陣風風向及風速(公里每小時) Maximum gust peak speed in km/h with direction in points						
	日期/月份 Date/Month	年份 Year	方位 Direction	距離(公里) Distance (km)	每小時 Hourly	瞬時 Inst.	香港天文台 Hong Kong Observatory	京士柏 King's Park	啟德機場 # Kai Tak Airport #	橫瀾島 Waglan Island	長洲 Cheung Chau	大老山 Tate's Cairn	青洲 Green Island	香港天文台 Hong Kong Observatory	京士柏 King's Park	啟德機場 # Kai Tak Airport #	橫瀾島 Waglan Island	長洲 Cheung Chau	大老山 Tate's Cairn	青洲 Green Island
-	18 / 7	1946	南 S	70	985.7	-	東北 NE	-	-	-	-	-	-	-	-	-	-	-	-	-
姬羅莉亞 Gloria	22 / 9	1957	西南 SW	55	986.2	984.3	東南偏東 ESE	115	-	東南偏東 ESE	72	東 E	113	-	-	-	東 E	187	-	東北偏東 ENE	158	東北偏東 ENE	185	-	-	-
瑪麗 Mary	9 / 6	1960	西北偏西 WNW	10	974.3	973.8	東南偏南 SSE	96	-	東南偏南 SSE	92	西南偏南 SSW	112	-	-	-	東南偏南 SSE	191	-	東南 SE	164	西南偏南 SSW	194	-	-	-
愛麗斯 Alice	19 / 5	1961		0	981.6	981.1	東北偏東 ENE	83	-	東 E	70	東南偏東 ESE	90	東北偏東 ENE	76	-	-	東 E	166	-	東北偏東 ENE	139	西南 SW	128	東北偏東 ENE	135	-	-
溫黛 Wanda	1 / 9	1962	西南偏南 SSW	20	955.1	953.2	北 N	133	-	北 N	108	西北 NW	148	西北 NW	118	東南 SE	189	-	北 N	259	-	北 N	229	西北偏北 NNW	216	西北 NW	232	東南偏東 ESE	284	-
露比 Ruby	5 / 9	1964	西南 SW	30	971.0	968.2	東 E	110	-	北 N	118	東北偏東 ENE	148	東北 NE	113	東南偏東 ESE	167	-	東北偏北 NNE	227	-	西北 NW	203	東 E	230	東北偏北 NNE	216	東 E	268	-
黛蒂 Dot	13 / 10	1964	東 E	35	978.9	977.3	西北偏北 NNW	88	-	北 N	67	北 N	117	西北偏北 NNW	96	東北偏北 NNE	157	-	北 N	175	-	北 N	198	北 N	184	西北偏西 WNW	205	東北 NE	220	-
雪麗 Shirley	21 / 8	1968		0	968.7	968.6	北 N	68	-	北 N	75	東北偏北 NNE	124	西南偏南 SSW	90	東北偏北 NNE	126	-	北 N	133	-	北 N	151	東北 NE	209	西南偏南 SSW	167	東北偏北 NNE	203	-
露絲 Rose	17 / 8	1971	西南偏西 WSW	20	984.5	982.8	東南 SE	103	-	東南 SE	122	東南偏東 ESE	140	東南 SE	131	南 S	148	-	東南偏東 ESE	224	-	東南偏東 ESE	211	東南偏東 ESE	189	東南 SE	194	南 S	221	-
愛茜 Elsie	14 /10	1975	南 S	50	996.4	996.2	東北偏東 ENE	58	北 N	75	西北偏北 NNW	67	東北偏北 NNE	118	北 N	106	東北 NE	130	西北偏北 NNW	118	東北 NE	140	北 N	137	北 N	140	東北偏東 ENE	176	東北 NE	158	東北偏北 NNE	180	東北 NE	167
荷貝 Hope	2 / 8	1979	西北偏北 NNW	10	961.8	961.6	西 W	75	西北偏西 WNW	79	西 W	115	西南 SW	144	西南偏南 SSW	117	西北 NW	115	西 W	108	西 W	175	西北偏西 WNW	166	西北偏西 WNW	182	西南 SW	198	西南偏西 WSW	185	西北偏西 WNW	229	西 W	167
愛倫 Ellen	9 / 9	1983	西南 SW	45	983.9	983.1	東 E	92	東 E	88	東 E	112	東南偏東 ESE	169	東南偏東 ESE	171	東 E	126	南 S	137	東 E	185	東 E	167	東 E	203	東 E	227	東南偏南 SSE	238	東北偏東 ENE	218	南 S	220*
約克 York	16 / 9	1999	西南偏南 SSW	20	976.8	976.1	東 E	63	北 N	68	東北偏北 NNE	59	東北偏北 NNE	153	東北偏北 NNE	113	-		-		東 E	137	東北偏北 ENE	149	東北偏東 ENE	142	東北偏北 NNE	234	東北 NE	182	-		-	
韋森特 Vicente	24 / 7	2012	西南 SW	100	986.3	986.0	東 E	56	東南偏東 ESE	56	東南偏東 ESE	70	東 E	108	東南偏東 ESE	128	東 E	117	東北 NE	92	東南偏東 ESE	117	東南偏東 ESE	110	東 E	135	東南偏東 ESE	149	東 E	184	東南偏東 ESE	166	東北 NE	155
天鴿 Hato	23 / 8	2017	西南偏南 SSW	60	986.7	986.3	東 E	62	東南偏東 ESE	54	東南偏東 ESE	67	東 E	137	東南偏東 ESE	128	東北偏東 ENE	118	-		東 E	122	東南偏東 ESE	113	東北 NE	130	東 E	193	東南 SE	171	東北 NE	187	-	
山竹 Mangkhut	16 / 9	2018	西南偏南 SSW	100	977.6	977.0	東 E	81	東 E	70	東南偏東 ESE	81	東北 NE	161	東 E	157	東北偏東 ENE	166	東北 NE	128	東 E	169	東北偏北 NNE	161	東北偏東 ENE	142	東北 NE	220	東 E	212	東北偏東 ENE	256	東北偏北 NNE	229
蘇拉 Saola	1 / 9	2023	東南偏南 SSE	40	987.8	986.7	東 E	62	東北偏北 NNE	51	西北,東 NW,E	50	東北偏北 NNE	154	東北偏北 NNE	116	東北偏東, 東北 ENE, NE	135	東北偏北 NNE	127	東 E	122	東北偏北 NNE	121	東北 NE	117	東北偏北 NNE	183	東北偏北 NNE	171	東北偏東 ENE	183	東北偏北 NNE	180

隨著香港國際機場遷移到赤鱲角，啟德的氣象所已於一九九八年七月六日關閉。啟德測風站於一九九八年九月四日開始運作。

With the moving of the Hong Kong International Airport to Chek Lap Kok, the meteorological office at Kai Tak was closed on 6 July 1998. Kai Tak anemometer station started operation on 4 September 1998.

* 估計，超出風速記錄圖的上限。

* Estimated, exceeding upper limit of anemogram.

表 4.10　二零二四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 2024

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$)						保險索賠總額# (百萬港元) The total amount of insurance claims (million HK$) **(b)**	估計直接經濟損失@ (百萬港元) Estimated direct economic loss (million HK$) **(a) + (b)**
		農業 Agriculture	公用建設 (處) Public works facilities (site)	公用業務 (處) Public utilities (site)	物業單位 (個) Property (unit)	山泥傾瀉及斜坡倒塌 (宗) Landslip and collapse of slope (case)	損失或毀壞的船隻數目 (艘) Ships lost or damaged (number)	塌樹報告 (宗) Report(s) of fallen trees (case)	農業 Agriculture	公用建設 Public works facilities	公用業務 Public utilities	私人物業 Private property	工業 Industry	共 Total **(a)**		
熱帶風暴馬力斯 Tropical Storm Maliksi	5 - 6		人行道 Pavement: 1	電信設施 Telecommunication facilities: 597		1		2			0.0300			0.0300		
強烈熱帶風暴派比安 Severe Tropical Storm Prapiroon	7			指示牌 Signage: 1 電信設施 Telecommunication facilities: 573							0.0115			0.0115		
超強颱風摩羯 Super Typhoon Yagi	9		通道 Access road: 2 電纜 Electric cable: 1 圍欄 Fence: 3 路燈柱 Lamppost: 1 涼亭 Pavilion: 1 河堤 River embankment: 1 道路 Road: 6處 sites 招牌 Sign board: 1	捲閘 Roller shutter: 1 海水泵 Sea water pump: 1 電信設施 Telecommunication facilities: 650	5	2	3	581			1.2063			1.2063	36.2676	37.4738
颱風潭美 Typhoon Trami	10			電信設施 Telecommunication facilities: 1,167			3									
超強颱風銀杏 Super Typhoon Yinxing	11		告示板 Notice board: 2 指示牌 Signage: 1 其他 Others: 3	電信設施 Telecommunication facilities: 194			1			0.0105				0.0105		
颱風桃芝 Typhoon Toraji	11		圍欄 Fence: 2	電信設施 Telecommunication facilities: 1,380	2		1	227			0.7000			0.7000	5.0348	5.7348
超強颱風萬宜 Super Typhoon Man-yi	11		電線桿 Electric pole: 1 圍欄 Fence: 1	電信設施 Telecommunication facilities: 438			4									

保險索償數據由香港保險業聯會提供，有關數據已經按參與調查的機構的所佔的市場份額作調整。請注意2024年的保險索償數據只涵蓋超強颱風摩羯及颱風桃芝。

The insurance claim figure is provided by the Hong Kong Federation of Insurers. The data have been adjusted by the market shares of the companies participating in the survey. Note that the insurance claim figure is only available for Super Typhoon Yagi and Typhoon Toraji in 2024.

* 資料由各有關政府部門及公共事業機構提供，並已扣除相關的保險索償 (截至2025年4月24日)。

* The data is provided by relevant government departments and public utility companies (up to 24 April 2025). Items with insurance claim made have been excluded.

@ 直接經濟損失估算僅供參考，可能受到調查數據和分析方法的各種不確定性的影響。估算詳情及免責聲明可參考附件一。

@ The estimates are for reference only and may be subject to various uncertainties in the survey responses and analysis method. Please refer to Annex 1 for details of estimation and disclaimer.

由於四捨五入關係，表內個別項目的數字加起來可能與總數略有出入。

The sum of figures may not add up to total due to rounding.

表 4.11　　一九六零至二零二四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 : 1960 – 2024

年份 Year	日期 / 月份 Date / Month	Name of tropical cyclone	熱帶氣旋名稱	死亡人數 Persons dead	失蹤人數 Persons missing	受傷人數 Persons injured	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
1960	4 / 6 - 12 / 6	T. Mary	瑪麗	45	11	127	6	352	462
1961	17 / 5 - 21 / 5	T. Alice	愛麗斯	4	0	20	*	*	*
	7 / 9 - 10 / 9	S.T.S. Olga	奧嘉	7	0	0	0	1	0
1962	28 / 8 - 2 / 9	T. Wanda	溫黛	130	53	*	36	1 297	756
1963	1 / 9 - 9 / 9	T. Faye	菲爾	3	0	51	0	2	0
1964	26 / 5 - 28 / 5	T. Viola	維奧娜	0	0	41	5	18	18
	2 / 8 - 9 / 8	T. Ida	艾黛	5	4	56	3	7	60
	2 / 9 - 6 / 9	T. Ruby	露比	38	6	300	20	32	282
	4 / 9 - 10 / 9	T. Sally	莎莉	9	0	24	0	0	0
	7 /10 - 13 /10	T. Dot	黛蒂	26	10	85	2	31	59
1965	6 / 7 - 16 / 7	T. Freda	法妮黛	2	0	16	0	1	0
	25 / 9 - 28 / 9	T.S. Agnes	愛娜斯	5	0	3	0	0	0
1966	12 / 7 - 14 / 7	S.T.S. Lola	露娜	1	0	6	0	*	6
1967	19 / 8 - 22 / 8	S.T.S. Kate	姬蒂	0	0	3	3	1	0
1968	17 / 8 - 22 / 8	T. Shirley	雪麗	0	0	4	1	*	3
1969	22 / 7 - 29 / 7	T. Viola	維奧娜	0	0	0	0	3	0
1970	1 / 8 - 3 / 8	T.D. -	-	2+	0	0	0	0	0
	8 / 9 - 14 / 9	T. Georgia	喬治亞	0	0	0	2	0	*
1971	15 / 6 - 18 / 6	T. Freda	法妮黛	2	0	30	8	0	0
	16 / 7 - 22 / 7	T. Lucy	露茜	0	0	38	10	2	13
	10 / 8 - 17 / 8	T. Rose	露絲	110	5	286	33	303	*
1972	4 /11 - 9 /11	T. Pamela	柏美娜	1	0	8	3	0	0
1973	14 / 7 - 20 / 7	T. Dot	黛蒂	1	0	38	14	*	*
1974	7 / 6 - 14 / 6	T. Dinah	戴娜	0	0	0	1	*	*
	18 / 7 - 22 / 7	T. Ivy	艾菲	0	0	0	2	*	*
	15 /10 - 19 /10	T. Carmen	嘉曼	1	0	0	5	*	*
	21 /10 - 27 /10	T. Della	黛娜	0	0	0	2	*	*
1975	10 / 8 - 14 / 8	T.D. -	-	2	1	0	3	1	*
	9 /10 - 14 /10	T. Elsie	愛茜	0	0	46	7	2	1
	16 /10 - 23 /10	S.T.S. Flossie	霍蘿茜	0	0	0	1	*	*
1976	22 / 6 - 4 / 7	T. Ruby	露比	3	2	2	0	0	0
	21 / 7 - 26 / 7	S.T.S. Violet	維奧莉	2	1	1	0	0	0
	5 / 8 - 6 / 8	S.T.S. Clara	嘉麗	0	0	4	0	0	0
	21 / 8 - 24 / 8	T.S. Ellen	愛倫	27	3	65	0	4	7
	15 / 9 - 21 / 9	T. Iris	愛莉斯	0	0	27	6	0	1
1977	4 / 7 - 6 / 7	T.D. -	-	0	0	2	0	0	0
	3 / 9 - 5 / 9	T.S. Carla	嘉娜	0	0	1	1	0	0
	22 / 9 - 25 / 9	S.T.S. Freda	法妮黛	1	0	37	2	0	0
1978	24 / 7 - 30 / 7	S.T.S. Agnes	愛娜斯	3	0	134	0	25	42
	9 / 8 - 12 / 8	T.S. Bonnie	邦妮	0	0	0	2	0	0
	23 / 8 - 28 / 8	S.T.S. Elaine	伊蘭	1	0	51	8	5	8
	22 / 9 - 26 / 9	S.T.S. Kit	吉蒂	0	7	0	0	1	0
	7 /10 - 16 /10	S.T.S. Nina	蓮娜	0	0	2	0	0	0
	17 /10 - 29 /10	T. Rita	麗妲	0	0	3	1	5	0
1979	1 / 7 - 6 / 7	T. Ellis	艾利斯	0	0	0	0	2	0
	26 / 7 - 30 / 7	T.S. Gordon	戈登	0	0	0	0	2	0
	28 / 7 - 3 / 8	T. Hope	荷貝	12	0	260	29	167	207
	6 / 8 - 9 / 8	T.D. -	-	0	0	0	0	3	0
	16 / 9 - 24 / 9	S.T.S. Mac	麥克	1	0	67	2	12	0
1980	5 / 7 - 12 / 7	S.T.S. Ida	艾黛	0	0	0	1	0	0
	18 / 7 - 23 / 7	T. Joe	喬伊	2	1	59	4	0	1
	20 / 7 - 28 / 7	T. Kim	甘茵	0	0	0	0	2	1
	29 /10 - 2 /11	T.S. Cary	卡里	0	0	0	0	0	2
1981	3 / 7 - 7 / 7	S.T.S. Lynn	林茵	0	0	32	0	0	3
1982	27 / 6 - 2 / 7	T.S. Tess	戴絲	0	0	16	0	1	0
	22 / 7 - 30 / 7	T. Andy	安迪	0	0	0	0	0	1
	5 / 9 - 16 / 9	T. Irving	伊文	0	0	0	0	0	2
1983	12 / 7 - 19 / 7	T. Vera	維娜	0	0	0	0	1	0
	29 / 8 - 9 / 9	T. Ellen	愛倫	10	12	333	44	135	225
	10 /10 - 14 /10	T. Joe	喬伊	0	0	58	2	0	3
	20 /10 - 26 /10	S.T.S. Lex	力士	0	0	0	0	0	1
1984	27 / 8 - 7 / 9	T. Ike	艾克	0	0	1	0	0	0
1985	19 / 6 - 25 / 6	T. Hal	哈爾	0	1	13	0	4	2
	1 / 9 - 7 / 9	T. Tess	戴絲	2	0	12	6	1	3
	13 /10 - 22 /10	T. Dot	黛蒂	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	死亡人數 Persons dead	失蹤人數 Persons missing	受傷人數 Persons injured	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
1986	3 / 7 - 12 / 7	T. Peggy	蓓姬	1	0	26	3	0	3
	9 / 8 - 12 / 8	T.D. -	-	0	0	3	0	1	5
	18 / 8 - 6 / 9	T. Wayne	韋恩	3	1	15+	0	3	0
	11 /10 - 19 /10	T. Ellen	愛倫	0	0	4	1	2	1
1987	16 /10 - 27 /10	T. Lynn	林茵	0	0	1	0	0	0
1988	14 / 7 - 20 / 7	T. Warren	華倫	0	1	12	1	2	1
	19 / 9 - 22 / 9	T. Kit	吉蒂	0	0	0	0	0	1
	18 /10 - 23 /10	T. Pat	帕特	2	0	1	0	0	0
	21 /10 - 29 /10	T. Ruby	露比	0	0	4	0	0	0
1989	16 / 5 - 21 / 5	T. Brenda	布倫達	6	1	119	0	3	5
	11 / 7 - 19 / 7	T. Gordon	戈登	2	0	31	1	0	8
	8 /10 - 14 /10	T. Dan	丹尼	0	0	0	1	0	1
1990	15 / 5 - 19 / 5	T. Marian	瑪麗安	0	0	0	0	0	1
	15 / 6 - 19 / 6	S.T.S. Nathan	彌敦	5	1	1	1	0	2
	21 / 6 - 30 / 6	T. Percy	珀西	1	0	0	0	0	0
	27 / 7 - 31 / 7	S.T.S. Tasha	泰莎	0	0	1	0	1	0
	25 / 8 - 30 / 8	T. Becky	貝姬	0	1	0	0	0	0
	10 / 9 - 20 / 9	T. Ed	義德	0	0	1	0	0	0
1991	15 / 7 - 20 / 7	T. Amy	艾美	0	0	1	1	0	2
	20 / 7 - 24 / 7	S.T.S. Brendan	布倫登	0	0	17	1	1	13
	13 / 8 - 18 / 8	T. Fred	法雷德	0	0	0	0	1	0
1992	9 / 7 - 14 / 7	T. Eli	艾里	0	0	23	0	0	1
	17 / 7 - 18 / 7	T.S. Faye	菲爾	2	0	24	1	0	3
	19 / 7 - 23 / 7	S.T.S. Gary	加里	0	0	18	2	0	0
1993	21 / 6 - 28 / 6	T. Koryn	高蓮	0	0	183	0	0	2
	16 / 8 - 21 / 8	T. Tasha	泰莎	0	0	35	0	0	7
	9 / 9 - 14 / 9	T. Abe	艾貝	1	0	0	0	0	0
	15 / 9 - 17 / 9	S.T.S. Becky	貝姬	1	0	130	0	0	10
	23 / 9 - 27 / 9	T. Dot	黛蒂	0	1	48	0	1	0
	28 /10 - 5 /11	T. Ira	艾拉	2	0	30	0	1	0
1994	23 / 6 - 25 / 6	T.S. Sharon	莎朗	0	0	5	0	1	1
	25 / 8 - 29 / 8	S.T.S. Harry	夏里	1	0	2	0	0	2
1995	7 / 8 - 12 / 8	S.T.S. Helen	海倫	3	0	35	0	0	0
	25 / 8 - 1 / 9	T. Kent	肯特	0	0	5	0	0	0
	28 / 9 - 4 /10	T. Sibyl	斯寶	0	0	14	0	0	0
1996	5 / 9 - 10 / 9	T. Sally	莎莉	2	0	4	0	0	0
	18 / 9 - 23 / 9	S.T.S. Willie	威利	0	1	0	0	0	0
1997	31 / 7 - 3 / 8	T. Victor	維克托	1	0	58	0	0	0
	20 / 8 - 23 / 8	T. Zita	思蒂	0	0	3	0	0	0
1998	7 / 8 - 11 / 8	S.T.S. Penny	彭妮	1	0	1	0	0	0
	12 / 9 - 14 / 9	T.D. -	-	0	0	10	0	0	0
	15 /10 - 27 /10	T. Babs	寶絲	0	0	14	0	0	0
1999	28 / 4 - 2 / 5	T. Leo	利奧	0	0	14	0	0	0
	2 / 6 - 8 / 6	T. Maggie	瑪姬	0	0	5	0	2	0
	25 / 7 - 28 / 7	T.S. -	-	0	0	18	0	0	0
	19 / 8 - 23 / 8	T. Sam	森姆	4	0	328	0	0	0
	12 / 9 - 17 / 9	T. York	約克	2	0	500	3	*	*
	24 / 9 - 26 / 9	S.T.S. Cam	錦雯	1	0	23	0	0	0
2000	15 / 7 - 16 / 7	T.D. -	-	0	1	6	0	0	0
	27 / 8 - 1 / 9	S.T.S. Maria	瑪莉亞	2	0	0	0	0	0
	5 / 9 - 10 / 9	T. Wukong	悟空	0	0	1	0	0	1
2001	30 / 6 - 3 / 7	T. Durian	榴槤	0	0	1	0	0	0
	1 / 7 - 8 / 7	T. Utor	尤特	1	0	1	0	1	0
	23 / 7 - 26 / 7	T. Yutu	玉兔	0	0	10	0	0	0
	28 / 8 - 1 / 9	T.S. Fitow	菲特	2	0	0	0	0	0
2002	15 / 8 - 20 / 8	S.T.S. Vongfong	黃蜂	0	0	2	0	0	1
	10 / 9 - 13 / 9	S.T.S. Hagupit	黑格比	0	0	32	0	0	3
2003	16 / 7 - 23 / 7	S.T.S. Koni	天鵝	0	0	15	0	0	0
	17 / 7 - 25 / 7	T. Imbudo	伊布都	1	0	45	0	2	8
	17 / 8 - 26 / 8	T. Krovanh	科羅旺	0	0	11	0	0	2
	29 / 8 - 3 / 9	T. Dujuan	杜鵑	0	4	24	0	1	4
2004	14 / 7 - 16 / 7	T.S. Kompasu	圓規	0	0	12	0	0	0
2005	10 / 8 - 14 / 8	S.T.S. Sanvu	珊瑚	0	0	0	0	0	1
	16 / 9 - 19 / 9	T.S. Vicente	韋森特	2	0	0	0	0	0
	21 / 9 - 28 / 9	T. Damrey	達維	0	0	5	0	0	1
2006	9 / 5 - 18 / 5	T. Chanchu	珍珠	0	0	6	0	1	0
	27 / 6 - 29 / 6	T.S. Jelawat	杰拉華	1	0	0	0	0	0
	31 / 7 - 4 / 8	T. Prapiroon	派比安	0	0	8	0	1	4
	6 / 8 - 10 / 8	S.T.S. Bopha	寶霞	0	0	0	0	0	1
	23 / 8 - 25 / 8	T.D. -	-	0	0	0	0	0	1
	12 / 9 - 13 / 9	T.D. -	-	0	0	1	0	0	0
	27 /10 - 6 /11	T. Cimaron	西馬侖	0	0	4	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	死亡人數 Persons dead	失蹤人數 Persons missing	受傷人數 Persons injured	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
2007	5 / 8 - 11 / 8	S.T.S. Pabuk	帕布	1	0	17	0	0	0
2008	15 / 4 - 20 / 4	T. Neoguri	浣熊	0	0	2	0	0	0
	18 / 6 - 26 / 6	T. Fengshen	風神	0	0	17	0	0	0
	4 / 8 - 8 / 8	S.T.S. Kammuri	北冕	0	0	37	0	0	0
	17 / 8 - 23 / 8	T. Nuri	鸚鵡	2	0	112	0	0	0
	19 / 9 - 25 / 9	T. Hagupit	黑格比	0	0	58	0	10	0
2009	15 / 7 - 19 / 7	T. Molave	莫拉菲	0	0	5	0	3	0
	1 / 8 - 9 / 8	S.T.S. Goni	天鵝	4	0	10	0	1	0
	9 / 9 - 12 / 9	T.S. Mujigae	彩虹	0	0	1	0	0	0
	12 / 9 - 16 / 9	T. Koppu	巨爵	0	0	74	0	0	0
2010	19 / 7 - 23 / 7	T. Chanthu	燦都	4	0	30	0	0	0
2011	18 / 6 - 25 / 6	T.S. Haima	海馬	0	0	3	0	1	0
	25 / 7 - 31 / 7	S.T.S. Nock-ten	洛坦	0	0	4	0	0	1
	23 / 9 - 1 /10	T. Nesat	納沙	0	0	26	0	1	1
	27 / 9 - 5 /10	S.T. Nalgae	尼格	0	0	1	0	0	0
2012	26 / 6 - 30 / 6	T.S. Doksuri	杜蘇芮	0	0	2	0	1	0
	20 / 7 - 25 / 7	S.T. Vicente	韋森特	0	0	138	0	1	0
	12 / 8 - 18 / 8	T. Kai-tak	啟德	0	0	1	0	0	0
	18 / 8 - 30 / 8	S.T. Tembin	天秤	1	0	1	0	0	0
2013	9 / 8 - 16 / 8	SuperT. Utor	尤特	0	1	9	0	0	0
	17 / 9 - 23 / 9	SuperT. Usagi	天兔	0	0	17	0	0	1
2014	14 / 6 - 15 / 6	T.S. Hagibis	海貝思	0	0	1	0	0	0
	14 / 9 - 17 / 9	T. Kalmaegi	海鷗	0	0	29	0	0	0
2016	31 / 7 - 2 / 8	T. Nida	妮妲	0	0	12	0	0	0
	16 /10 - 18 /10	SuperT. Sarika	莎莉嘉	0	1	2	0	0	0
	20 /10 - 21 /10	SuperT. Haima	海馬	0	0	13	0	0	3
2017	11 / 6 - 13 / 6	S.T.S. Merbok	苗柏	0	0	10	0	0	2
	22 / 7 - 23 / 7	T.S. Roke	洛克	0	0	0	0	0	2
	22 / 8 - 23 / 8	SuperT. Hato	天鴿	0	0	129	1	0	36
	26 / 8 - 27 / 8	S.T.S. Pakhar	帕卡	0	0	62	0	0	15
	2 / 9 - 4 / 9	S.T.S. Mawar	瑪娃	0	0	0	0	0	8
	14 /10 - 16 /10	S.T. Khanun	卡努	0	0	22	0	0	3
2018	5 / 6 - 8 / 6	T.S. Ewiniar	艾雲尼	0	0	1	0	0	6
	17 / 7 - 24 / 7	T.S. Son-Tinh	山神	0	0	2	0	0	1
	9 / 8 - 15 / 8	S.T.S. Bebinca	貝碧嘉	0	0	1	0	0	13
	11 / 9 - 13 / 9	T.S. Barijat	百里嘉	0	0	0	0	0	2
	14 / 9 - 17 / 9	SuperT. Mangkhut	山竹	0	0	458	0	0	708
	31 /10 - 2 /11	SuperT. Yutu	玉兔	1	0	0	0	0	2
2019	2 / 7 - 3 / 7	T.D. Mun	木恩	0	0	0	0	0	2
	30 / 7 - 3 / 8	T.S. Wipha	韋帕	0	0	20	0	0	8
	24 / 8 - 25 / 8	S.T.S. Bailu	白鹿	0	0	0	0	0	2
2020	12 / 6 - 14 / 6	T.S. Nuri	鸚鵡	1	0	1	0	1	5
	31 / 7 - 1 / 8	T.S. Sinlaku	森拉克	0	0	4	0	0	4
	18 / 8 - 19 / 8	T. Higos	海高斯	0	0	7	0	0	0
	11 /10 - 14 /10	T.S. Nangka	浪卡	0	0	3	0	0	2
	22 /10 - 24 /10	T. Saudel	沙德爾	0	0	0	0	0	1
2021	6 / 7 - 7 / 7	T.D. -	-	0	0	0	0	0	2
	18 / 7 - 20 / 7	T. Cempaka	查帕卡	1	0	0	0	0	6
	2 / 8 - 4 / 8	T.S. Lupit	盧碧	0	0	0	0	0	2
	8 /10 - 10 /10	T.S. Lionrock	獅子山	2	0	14	0	0	7
	12 /10 - 14 /10	T. Kompasu	圓規	0	0	20	0	0	1
2022	29 / 6 - 3 / 7	T. Chaba	暹芭	0	0	3	0	0	7
	9 / 8 - 10 / 8	T.S. Mulan	木蘭	0	0	0	0	0	2
	23 / 8 - 25 / 8	T. Ma-on	馬鞍	0	0	1	0	0	3
	16 /10 - 18 /10	T. Nesat	納沙	0	0	8	0	0	0
	30 /10 - 3 /11	S.T.S. Nalgae	尼格	0	0	1	0	2	0
2023	15 / 7 - 18 / 7	T. Talim	泰利	0	0	9	0	0	5
	30 / 8 - 2 / 9	SuperT. Saola	蘇拉	0	0	86	0	0	19
	4 / 9 - 8 / 9	S.T. Haikui#	海葵#	2	0	144	0	0	2
	4 /10 - 9 /10	S.T. Koinu	小犬	0	0	29	0	0	6
2024	30 / 5 - 1 / 6	T.S. Maliksi	馬力斯	0	0	1	0	0	0
	3 / 9 - 7 / 9	SuperT. Yagi	摩羯	0	0	9	0	0	3
	25 /10 - 27 /10	T. Trami	潭美	0	0	0	0	1	2
	8 /11 - 10 /11	SuperT. Yinxing	銀杏	0	0	0	0	0	1
	11 /11 - 15 /11	T. Toraji	桃芝	0	0	1	0	1	0
	18 /11 - 19 /11	SuperT. Man-yi	萬宜	0	0	0	0	0	4

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。

* 缺乏數據

\+ 被雷電擊中

\# 包括其殘餘相關暴雨

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.

* Data unavailable.

\+ Struck by lightning.

\# Including rainstorm associated with its remnant

表 4.12　二零二四年天文台發出的熱帶氣旋路徑預測驗証 (誤差單位為公里)

TABLE 4.12　VERIFICATION OF THE TROPICAL CYCLONE TRACK FORECASTS ISSUED BY THE HONG KONG OBSERVATORY IN 2024 (ERROR IN THE UNIT OF KM)

熱帶氣旋名稱	Name of tropical cyclone	編號 Code	最高強度 Maximum Intensity	24 小時預測位置 24-hour forecast position		48 小時預測位置 48-hour forecast position		72 小時預測位置 72-hour forecast position		96 小時預測位置 96-hour forecast position		120 小時預測位置 120-hour forecast position	
				平均誤差 Average error	預測數目 No. of forecasts	平均誤差 Average error	預測數目 No. of forecasts	平均誤差 Average error	預測數目 No. of forecasts	平均誤差 Average error	預測數目 No. of forecasts	平均誤差 Average error	預測數目 No. of forecasts
艾雲尼	Ewiniar	2401	T.	51	20	49	16	73	12	92	8	102	4
馬力斯	Maliksi	2402	T.S.	84	4	-	-	-	-	-	-	-	-
格美	Gaemi	2403	SuperT.	68	30	77	25	116	21	181	18	312	11
派比安	Prapiroon	2404	S.T.S.	58	13	68	9	147	5	-	-	-	-
安比	Ampil	2407	S.T.	78	6	71	6	99	6	134	6	119	3
雲雀	Jongdari	2409	T.S.	35	6	145	2	-	-	-	-	-	-
珊珊	Shanshan	2410	SuperT.	68	25	130	21	201	17	340	13	444	5
摩羯	Yagi	2411	SuperT.	58	25	83	21	89	17	174	13	274	9
貝碧嘉	Bebinca	2413	T.	54	19	91	15	113	9	189	6	349	3
普拉桑	Pulasan	2414	T.S.	155	12	248	7	356	3	-	-	-	-
蘇力	Soulik	2415	T.S.	111	7	217	3	-	-	-	-	-	-
西馬侖	Cimaron	2416	T.S.	102	5	225	2	-	-	-	-	-	-
山陀兒	Krathon	2418	SuperT.	56	24	123	20	238	16	377	12	556	8
潭美	Trami	2420	T.	81	26	112	22	158	18	191	14	303	10
康妮	Kong-rey	2421	SuperT.	63	23	76	19	137	15	260	11	420	7
銀杏	Yinxing	2422	SuperT.	41	31	91	26	148	22	231	19	290	15
桃芝	Toraji	2423	T.	44	20	77	16	88	12	120	8	126	4
萬宜	Man-yi	2424	SuperT.	32	20	34	16	50	12	84	8	66	4
天兔	Usagi	2425	SuperT.	50	16	125	12	198	8	260	4	-	-
帕布	Pabuk	2426	T.D.	85	8	184	3	-	-	-	-	-	-
熱帶低氣壓 (7月13日至15日)	Tropical Depression (13 - 15 Jul)	-	T.D.	70	4	-	-	-	-	-	-	-	-
平均誤差 Average Error				63		97		139		212		307	
預測總數 Total number of forecasts				344		261		193		140		83	

註：

1. 驗証包括當熱帶氣旋中心位於北緯7至36度，東經100至140度內，香港天文台發出觀測時間為協調世界時00時、06時、12時及18時的熱帶氣旋路徑。
2. 誤差是指香港天文台最佳路徑位置(見第五節)及預測位置的距離，單位為公里。

Note:

1. Verification includes tropical cyclone forecast tracks issued by the Hong Kong Observatory at 00, 06, 12 and 18 UTC for tropical cyclones within the area bounded by 7°N and 36°N, 100°E to 140°E.
2. Error refers to the distance between the tropical cyclone best track position (see Section 5) and forecast position of the Hong Kong Observatory, in the unit of km.

第五節　　二零二四年熱帶氣旋的位置及強度數據

以下是二零二四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。

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1.94海里或3.6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
(e) S.T.: - 強颱風
(f) Super T.: - 超強颱風

Section 5 TROPICAL CYCLONE POSITION AND INTENSITY DATA, 2024

Six-hourly position and intensity data are tabulated in this section for the following tropical cyclones in 2024 over the WNP and the SCS (i.e. the area bounded by the Equator, 45°N, 100°E and 180°).

In this section, surface winds refer to wind speeds averaged over a period of 10 minutes in unit of m/s (1 m/s is about 1.94 knots or 3.6 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
(e) S.T. : - severe typhoon
(f) Super T. : - super typhoon

颱風艾雲尼(2401)的每六小時位置及強度
SIX-HOURLY POSITION AND INTENSITY DATA OF TYPHOON EWINIAR (2401)

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	24	0000	T.D.	1002	13	8.4	127.5
		0600	T.D.	1002	13	9.4	127.0
		1200	T.D.	1002	13	10.0	126.1
		1800	T.D.	1000	16	11.1	125.2
	25	0000	T.D.	1000	16	12.0	124.0
		0600	T.D.	1000	16	12.6	122.7
		1200	T.D.	1000	16	13.2	122.1
		1800	T.S.	998	18	13.7	121.8
	26	0000	T.S.	992	23	14.0	121.6
		0600	S.T.S.	984	28	14.4	121.7
		1200	T.	970	36	14.9	122.2
		1800	T.	965	39	15.5	122.5
	27	0000	T.	965	39	15.8	122.8
		0600	T.	965	39	16.4	123.3
		1200	T.	970	36	17.0	124.0
		1800	T.	970	36	17.6	124.7
	28	0000	T.	970	36	18.5	125.7
		0600	T.	970	36	19.8	126.8
		1200	T.	970	36	21.1	128.0
		1800	T.	970	36	22.6	129.5
	29	0000	T.	975	33	24.2	130.7
		0600	T.	975	33	25.4	132.1
		1200	S.T.S.	980	31	26.4	132.8
		1800	S.T.S.	980	31	27.2	134.0
	30	0000	S.T.S.	984	28	28.1	134.9
			變為溫帶氣旋 Became Extratropical				

熱帶風暴馬力斯(2402)的每六小時位置及強度
SIX-HOURLY POSITION AND INTENSITY DATA OF TROPICAL STORM MALIKSI (2402)

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	30	0900	T.D.	1000	13	16.8	112.2
		1200	T.D.	1000	13	17.2	112.2
		1800	T.D.	1000	13	18.2	112.3
	31	0000	T.D.	998	16	19.1	112.1
		0600	T.S.	996	18	20.4	111.9
		1200	T.S.	996	18	20.8	111.4
		1800	T.S.	996	18	21.6	111.6
六月 Jun	1	0000	T.D.	998	16	22.6	112.2
		0600	T.D.	1000	13	23.3	112.5
			消散 Dissipated				

熱帶低氣壓(由七月十三日至十五日)的每六小時位置及強度
SIX-HOURLY POSITION AND INTENSITY DATA OF TROPICAL DEPRESSION (13 - 15 JULY)

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	13	0900	T.D.	998	13	13.4	112.7
		1200	T.D.	998	13	13.5	112.6
		1800	T.D.	998	13	13.7	112.4
	14	0000	T.D.	998	13	14.0	112.0
		0600	T.D.	998	13	14.5	111.5
		1200	T.D.	998	13	14.9	111.0
		1800	T.D.	998	13	15.6	110.1
	15	0000	T.D.	998	13	16.3	109.3
		0600	T.D.	998	13	17.0	107.9
		0900	T.D.	998	13	17.0	107.3
			消散 Dissipated				

強烈熱帶風暴派比安(2404)的每六小時位置及強度

SIX-HOURLY POSITION AND INTENSITY DATA OF

SEVERE TROPICAL STORM PRAPIROON (2404)

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	0600	T.D.	1000	13	14.4	117.6
		1200	T.D.	1000	13	14.8	116.6
		1800	T.D.	1000	13	15.2	115.5
	20	0000	T.D.	998	16	15.5	114.6
		0600	T.D.	998	16	15.9	113.5
		1200	T.D.	998	16	16.2	112.3
		1800	T.D.	998	16	16.3	111.7
	21	0000	T.S.	995	18	16.4	111.3
		0600	T.S.	992	21	17.0	111.2
		1200	T.S.	988	23	17.9	110.9
		1800	S.T.S.	984	25	18.8	110.2
	22	0000	T.S.	988	23	19.5	109.2
		0600	S.T.S.	984	25	20.0	108.6
		1200	S.T.S.	980	28	20.5	108.2
		1800	S.T.S.	984	25	20.8	107.9
	23	0000	T.S.	992	21	21.4	107.6
		0600	T.D.	998	16	21.6	107.4
		0900	T.D. 消散 Dissipated	1000	13	21.7	107.3

超強颱風格美(2403)的每六小時位置及強度
SIX-HOURLY POSITION AND INTENSITY DATA OF SUPER TYPHOON GAEMI (2403)

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	1200	T.D.	1000	13	13.3	131.0
		1800	T.D.	1000	13	14.5	130.0
	20	0000	T.D.	998	16	15.4	129.1
		0600	T.D.	998	16	15.8	128.3
		1200	T.S.	995	18	16.1	127.5
		1800	T.S.	992	21	16.4	126.7
	21	0000	T.S.	992	21	16.7	125.9
		0600	T.S.	988	23	16.8	125.8
		1200	T.S.	988	23	16.9	125.7
		1800	S.T.S.	984	25	17.3	125.7
	22	0000	S.T.S.	980	28	17.6	125.7
		0600	S.T.S.	976	31	17.9	125.5
		1200	T.	972	33	18.4	125.3
		1800	T.	968	36	18.8	125.1
	23	0000	T.	964	39	19.7	125.0
		0600	T.	960	41	20.8	125.0
		1200	S.T.	950	46	21.9	124.6
		1800	SuperT.	940	52	22.8	123.6
	24	0000	SuperT.	940	52	23.4	123.3
		0600	SuperT.	935	54	24.1	122.5
		1200	SuperT.	940	52	23.6	121.7
		1800	S.T.	945	49	24.6	121.5
	25	0000	S.T.	954	43	25.1	120.2
		0600	T.	962	39	25.1	119.7
		1200	T.	970	33	25.2	119.3
		1800	S.T.S.	978	28	25.5	118.8
	26	0000	S.T.S.	982	25	26.2	118.5
		0600	T.S.	985	23	27.6	118.0
		1200	T.S.	988	21	28.1	117.2
		1800	T.S.	992	18	28.7	116.6
	27	0000	T.D.	995	16	29.3	116.0
		0600	T.D.	995	16	29.8	115.6
		1200	T.D.	998	13	29.9	115.2
		1800	T.D.	998	13	30.0	114.6
			消散 Dissipated				

強烈熱帶風暴瑪莉亞(2405)的每六小時位置及強度
SIX-HOURLY POSITION AND INTENSITY DATA OF SEVERE TROPICAL STORM MARIA (2405)

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	6	1800	T.D.	1002	13	25.5	140.9
	7	0000	T.D.	1000	16	25.5	141.0
		0600	T.D.	1000	16	25.5	141.5
		1200	T.D.	1000	16	25.5	142.1
		1800	T.S.	998	18	25.7	142.8
	8	0000	T.S.	994	21	26.6	144.0
		0600	T.S.	990	23	27.8	144.7
		1200	S.T.S.	982	28	28.9	145.5
		1800	S.T.S.	978	31	29.9	145.6
	9	0000	S.T.S.	978	31	31.0	146.0
		0600	S.T.S.	978	31	32.2	146.0
		1200	S.T.S.	982	28	32.7	145.9
		1800	S.T.S.	982	28	34.2	145.9
	10	0000	S.T.S.	986	25	35.0	146.0
		0600	S.T.S.	986	25	36.0	145.2
		1200	T.S.	990	23	36.2	145.2
		1800	T.S.	990	23	36.8	145.1
	11	0000	S.T.S.	986	25	37.5	144.5
		0600	S.T.S.	986	25	37.7	143.9
		1200	S.T.S.	986	25	37.9	143.3
		1800	S.T.S.	986	25	38.3	142.6
	12	0000	S.T.S.	982	28	39.1	141.7
		0600	S.T.S.	986	25	39.9	140.8
		1200	T.S.	994	21	40.3	140.1
		1800	T.D.	1000	16	41.0	139.6
			消散 Dissipated				

熱帶風暴山神(2406)的每六小時位置及強度
SIX-HOURLY POSITION AND INTENSITY DATA OF TROPICAL STORM SON-TINH (2406)

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	10	1200	T.D.	1002	13	26.9	153.3
		1800	T.D.	1002	13	27.2	154.3
	11	0000	T.D.	1000	16	27.2	154.8
		0600	T.D.	1000	16	28.1	154.9
		1200	T.S.	998	18	28.9	154.8
		1800	T.S.	998	18	30.4	154.0
	12	0000	T.S.	998	18	31.5	153.1
		0600	T.S.	998	18	32.4	151.6
		1200	T.S.	998	18	32.9	150.3
		1800	T.D.	1000	16	34.1	149.1
	13	0000	T.D.	1000	16	35.1	147.8
		0600	T.D.	1000	16	36.0	146.8
		1200	T.D.	1002	13	37.1	146.0
			消散 Dissipated				

強颱風安比(2407)的每六小時位置及強度
SIX-HOURLY POSITION AND INTENSITY DATA OF SEVERE TYPHOON AMPIL (2407)

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	12	0000	T.D.	1002	13	22.7	135.7
		0600	T.D.	1000	16	23.0	136.0
		1200	T.S.	998	18	23.3	137.0
		1800	T.S.	994	21	24.0	137.2
	13	0000	T.S.	994	21	24.3	138.2
		0600	T.S.	990	23	24.8	138.8
		1200	S.T.S.	986	25	25.3	139.1
		1800	S.T.S.	982	28	25.6	139.4
	14	0000	S.T.S.	982	28	26.1	140.4
		0600	S.T.S.	978	31	26.8	140.8
		1200	S.T.S.	978	31	27.5	141.2
		1800	S.T.S.	978	31	28.5	141.3
	15	0000	T.	974	33	29.5	141.1
		0600	T.	970	36	30.5	141.1
		1200	T.	960	41	31.5	140.9
		1800	S.T.	950	46	32.5	140.8
	16	0000	S.T.	945	49	33.5	140.7
		0600	S.T.	945	49	34.1	141.1
		1200	S.T.	955	43	35.0	142.0
		1800	S.T.	955	43	35.8	142.8
	17	0000	T.	960	41	36.6	144.0
		0600	T.	965	39	37.3	145.7
		1200	T.	970	36	37.8	148.0
		1800	S.T.S.	978	31	38.5	150.1
	18	0000	S.T.S.	986	25	39.6	152.7
		0600	S.T.S.	986	25	40.5	155.4
		1200	S.T.S.	986	25	41.9	158.0
		1800	S.T.S.	986	25	43.2	160.9
			變為溫帶氣旋 Became Extratropical				

熱帶風暴悟空(2408)的每六小時位置及強度
SIX-HOURLY POSITION AND INTENSITY DATA OF TROPICAL STORM WUKONG (2408)

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	12	0600	T.D.	1002	13	25.6	148.8
		1200	T.D.	1000	16	26.2	149.4
		1800	T.D.	1000	16	26.4	149.7
	13	0000	T.S.	998	18	26.7	150.1
		0600	T.S.	998	18	27.0	149.8
		1200	T.S.	998	18	27.3	149.4
		1800	T.S.	998	18	27.8	149.3
	14	0000	T.S.	998	18	29.2	149.2
		0600	T.D.	1000	16	30.4	148.0
		1200	T.D.	1002	13	31.8	147.4
		1800	T.D.	1002	13	34.2	146.8
	15	0000	T.D.	1002	13	35.7	146.4
		0600	T.D.	1002	13	37.3	147.2
			變為溫帶氣旋 Became Extratropical				

熱帶風暴雲雀(2409)的每六小時位置及強度
SIX-HOURLY POSITION AND INTENSITY DATA OF TROPICAL STORM JONGDARI (2409)

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	18	0000	T.D.	1002	13	24.3	126.1
		0600	T.D.	1000	16	24.3	125.9
		1200	T.S.	998	18	24.3	125.7
		1800	T.S.	998	18	24.7	125.8
	19	0000	T.S.	998	18	25.1	125.9
		0600	T.S.	998	18	26.3	126.0
		1200	T.S.	998	18	27.6	125.8
		1800	T.S.	995	21	29.0	125.5
	20	0000	T.S.	995	21	31.0	125.6
		0600	T.S.	998	18	32.9	125.5
		1200	T.D.	1000	16	34.3	125.6
		1800	T.D.	1002	13	36.3	125.8
	21	0000	T.D.	1002	13	37.7	125.9
			消散 Dissipated				

超強颱風珊珊(2410)的每六小時位置及強度
SIX-HOURLY POSITION AND INTENSITY DATA OF SUPER TYPHOON SHANSHAN (2410)

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	0600	T.D.	1000	13	16.4	143.4
			1200	T.D.	998	16	16.6	142.7
			1800	T.S.	995	18	16.7	142.1
		22	0000	T.S.	992	21	16.8	141.6
			0600	T.S.	988	23	17.0	141.5
			1200	S.T.S.	984	25	17.1	141.4
			1800	S.T.S.	980	28	17.2	141.4
		23	0000	S.T.S.	980	28	17.4	141.4
			0600	S.T.S.	980	28	17.9	141.4
			1200	S.T.S.	980	28	18.3	141.2
			1800	S.T.S.	980	28	19.0	141.2
		24	0000	S.T.S.	976	31	19.8	141.2
			0600	S.T.S.	976	31	21.3	141.1
			1200	S.T.S.	976	31	22.6	140.7
			1800	S.T.S.	976	31	23.6	140.0
		25	0000	S.T.S.	976	31	24.7	139.0
			0600	S.T.S.	976	31	25.8	137.9
			1200	S.T.S.	976	31	26.5	136.5
			1800	S.T.S.	976	31	26.8	135.0
		26	0000	S.T.S.	976	31	27.2	133.8
			0600	T.	968	36	27.5	132.7
			1200	T.	964	39	27.7	131.9
			1800	S.T.	955	43	28.0	131.1
		27	0000	S.T.	945	49	28.2	130.8
			0600	S.T.	945	49	28.5	130.4
			1200	SuperT.	940	52	28.7	130.3
			1800	SuperT.	940	52	29.0	130.1
		28	0000	SuperT.	940	52	29.3	130.1
			0600	S.T.	945	49	30.0	130.0
			1200	S.T.	950	46	30.6	130.1
			1800	T.	960	41	31.3	130.0
		29	0000	T.	968	36	32.2	130.3
			0600	S.T.S.	976	31	32.8	130.4
			1200	S.T.S.	984	25	33.1	130.6
			1800	T.S.	988	23	33.3	130.9
		30	0000	T.S.	992	21	33.4	131.7
			0600	T.S.	992	21	33.7	132.4
			1200	T.S.	995	18	34.1	133.4
			1800	T.S.	995	18	33.9	134.2
		31	0000	T.S.	995	18	33.4	135.4
			0600	T.D.	998	16	33.2	136.4
			1200	T.D.	998	16	32.9	137.1
			1800	T.D.	998	16	33.0	137.1
九月	Sep	1	0000	T.D.	1000	13	33.2	136.9
				消散 Dissipated				

超強颱風摩羯(2411)的每六小時位置及強度
SIX-HOURLY POSITION AND INTENSITY DATA OF SUPER TYPHOON YAGI (2411)

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	1	0300	T.D.	1000	13	12.7	125.8
		0600	T.D.	998	16	12.9	125.4
		1200	T.S.	995	18	13.7	124.5
		1800	T.S.	992	21	14.5	123.2
	2	0000	T.S.	992	21	15.3	122.7
		0600	T.S.	992	21	16.3	122.2
		1200	T.S.	992	21	17.2	121.7
		1800	T.S.	992	21	18.0	120.7
	3	0000	T.S.	988	23	18.3	119.7
		0600	S.T.S.	984	25	18.6	119.1
		1200	S.T.S.	984	25	18.8	118.7
		1800	S.T.S.	976	31	18.9	118.3
	4	0000	T.	972	33	19.0	117.8
		0600	T.	960	41	19.1	117.5
		1200	S.T.	945	49	19.2	117.0
		1800	SuperT.	935	54	19.1	116.3
	5	0000	SuperT.	925	59	19.0	115.8
		0600	SuperT.	925	59	19.2	115.1
		1200	SuperT.	925	59	19.3	114.2
		1800	SuperT.	920	61	19.2	113.0
	6	0000	SuperT.	915	64	19.2	112.3
		0600	SuperT.	915	64	19.7	111.3
		1200	SuperT.	935	54	20.0	110.2
		1800	SuperT.	940	52	20.3	109.1
	7	0000	SuperT.	935	54	20.4	108.2
		0600	SuperT.	935	54	20.7	107.2
		0900	S.T.	950	46	20.9	106.6
		1200	T.	964	39	21.0	106.1
		1800	S.T.S.	980	28	21.1	105.3
	8	0000	T.S.	995	18	21.2	104.9
		0600	T.D.	1000	13	21.5	104.2
			消散 Dissipated				

熱帶低氣壓霍恩的每六小時位置及強度
SIX-HOURLY POSITION AND INTENSITY DATA OF TROPICAL DEPRESSION HONE

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	3	0000	T.D.	1002	16	27.6	179.4
		0600	T.D.	1002	16	28.8	178.9
		1200	T.D.	1004	13	29.4	178.5
		1800	T.D.	1004	13	29.8	178.1
			消散 Dissipated				

熱帶風暴麗琵(2412)的每六小時位置及強度
SIX-HOURLY POSITION AND INTENSITY DATA OF TROPICAL STORM LEEPI (2412)

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	3	0000	T.D.	1004	13	24.8	147.3
		0600	T.D.	1004	13	25.0	147.2
		1200	T.D.	1004	13	25.6	147.5
		1800	T.D.	1004	13	26.7	147.3
	4	0000	T.D.	1002	16	28.0	147.1
		0600	T.D.	1002	16	29.0	146.9
		1200	T.D.	1002	16	30.1	146.7
		1800	T.D.	1002	16	31.2	146.3
	5	0000	T.S.	1000	18	32.2	145.9
		0600	T.S.	1000	18	33.1	145.8
		1200	T.S.	1000	18	33.9	146.0
		1800	T.S.	1000	18	34.9	146.9
	6	0000	T.S.	1000	18	35.9	148.2
		0600	T.S.	1000	18	36.9	149.7
		1200	T.S.	1000	18	37.9	151.1
			變為溫帶氣旋 Became Extratropical				

颱風貝碧嘉(2413)的每六小時位置及強度
SIX-HOURLY POSITION AND INTENSITY DATA OF TYPHOON BEBINCA (2413)

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	10	0000	T.D.	1000	13	10.9	146.7
		0600	T.D.	998	16	11.6	146.2
		1200	T.S.	995	18	12.4	145.2
		1800	T.S.	995	18	13.0	144.4
	11	0000	T.S.	995	18	13.7	142.7
		0600	T.S.	995	18	14.5	142.1
		1200	T.S.	992	21	15.1	140.9
		1800	T.S.	988	23	15.9	140.6
	12	0000	S.T.S.	984	25	17.5	140.1
		0600	S.T.S.	984	25	19.1	139.6
		1200	S.T.S.	984	25	20.2	138.6
		1800	T.S.	988	23	21.1	137.6
	13	0000	T.S.	992	21	22.2	136.9
		0600	T.S.	992	21	23.5	135.5
		1200	T.S.	988	23	24.4	133.9
		1800	T.S.	988	23	25.2	132.8
	14	0000	S.T.S.	984	25	26.4	131.6
		0600	S.T.S.	980	28	27.4	130.2
		1200	S.T.S.	976	31	28.1	129.2
		1800	T.	972	33	28.9	128.1
	15	0000	T.	968	36	29.7	127.2
		0600	T.	964	39	30.1	125.9
		1200	T.	960	41	30.3	124.7
		1800	T.	960	41	30.5	123.1
	16	0000	T.	960	41	30.9	121.7
		0600	S.T.S.	976	31	31.4	120.4
		1200	S.T.S.	984	25	31.7	119.4
		1800	T.S.	988	23	32.1	118.2
	17	0000	T.S.	995	18	32.7	117.1
		0600	T.D.	998	16	33.1	116.4
		1200	T.D.	1000	13	33.1	115.9
			消散 Dissipated				

熱帶風暴普拉桑(2414)的每六小時位置及強度
SIX-HOURLY POSITION AND INTENSITY DATA OF TROPICAL STORM PULASAN (2414)

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	15	1200	T.D.	1000	13	12.9	144.2
		1800	T.D.	998	16	13.7	143.7
	16	0000	T.D.	998	16	14.7	142.8
		0600	T.D.	998	16	15.8	142.2
		1200	T.S.	995	18	16.8	141.1
		1800	T.S.	992	21	17.9	140.2
	17	0000	T.S.	988	23	18.9	138.4
		0600	T.S.	988	23	20.2	136.6
		1200	T.S.	988	23	21.5	134.6
		1800	T.S.	988	23	22.3	133.0
	18	0000	T.S.	988	23	23.1	131.5
		0600	T.S.	988	23	24.4	129.7
		1200	T.S.	992	21	25.6	128.8
		1800	T.S.	992	21	27.1	126.9
	19	0000	T.S.	992	21	28.8	125.5
		0600	T.S.	988	23	29.7	124.0
		1200	T.S.	988	23	30.8	122.2
		1800	T.S.	992	21	31.5	120.9
	20	0000	T.S.	995	18	31.8	120.1
		0600	T.S.	995	18	32.5	120.4
		1200	T.S.	995	18	32.7	121.1
		1800	T.S.	995	18	33.1	121.8
	21	0000	T.S. 變為溫帶氣旋 Became Extratropical	995	18	33.3	123.3

熱帶風暴蘇力(2415)的每六小時位置及強度
SIX-HOURLY POSITION AND INTENSITY DATA OF TROPICAL STORM SOULIK (2415)

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	16	0000	T.D.	998	13	17.2	125.1
		0600	T.D.	998	13	17.3	124.7
		1200	T.D.	998	13	17.3	123.2
		1800	T.D.	998	13	17.2	121.1
	17	0000	T.D.	998	13	17.0	119.4
		0600	T.D.	998	13	17.0	118.5
		1200	T.D.	996	16	16.9	117.3
		1800	T.D.	996	16	16.5	115.3
	18	0000	T.D.	996	16	16.5	113.7
		0600	T.D.	996	16	16.6	112.2
		1200	T.D.	996	16	17.2	111.3
		1800	T.S.	994	18	17.5	110.1
	19	0000	T.S.	994	18	17.2	108.3
		0600	T.S.	994	18	16.9	107.1
		1200	T.D.	996	16	16.8	106.3
		1800	T.D. 消散 Dissipated	998	13	17.0	105.7

熱帶低氣壓(九月二十二日)的每六小時位置及強度
SIX-HOURLY POSITION AND INTENSITY DATA OF TROPICAL DEPRESSION (22 SEPTEMBER)

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	22	0000	T.D.	1000	16	24.9	119.8
		0600	T.D.	1002	13	24.5	119.1
		0900	T.D.	1002	13	24.3	118.8
			消散 Dissipated				

熱帶風暴西馬侖(2416)的每六小時位置及強度
SIX-HOURLY POSITION AND INTENSITY DATA OF TROPICAL STORM CIMARON (2416)

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	1200	T.D.	1002	13	28.7	131.3
		1800	T.D.	1002	13	28.4	132.6
	24	0000	T.D.	1002	13	28.0	133.6
		0600	T.D.	1002	13	27.9	134.1
		1200	T.D.	1000	16	27.8	135.1
		1800	T.D.	1000	16	28.1	135.2
	25	0000	T.S.	998	18	28.3	134.5
		0600	T.S.	998	18	28.2	133.9
		1200	T.S.	998	18	27.8	133.3
		1800	T.S.	998	18	27.9	132.9
	26	0000	T.S.	998	18	28.2	132.4
		0600	T.D.	1000	16	28.0	132.2
		1200	T.D.	1002	13	28.0	131.9
		1800	T.D.	1002	13	28.3	132.0
	27	0000	T.D.	1002	13	28.5	132.2
			消散 Dissipated				

強烈熱帶風暴飛燕(2417)的每六小時位置及強度
SIX-HOURLY POSITION AND INTENSITY DATA OF SEVERE TROPICAL STORM JEBI (2417)

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	26	0000	T.D.	1002	13	15.9	147.3
			0600	T.D.	1002	13	16.1	147.2
			1200	T.D.	1002	13	16.8	146.7
			1800	T.D.	1000	16	17.4	146.2
		27	0000	T.D.	1000	16	17.8	145.5
			0600	T.S.	998	18	17.9	145.4
			1200	T.S.	998	18	18.0	145.3
			1800	T.S.	998	18	19.3	144.5
		28	0000	T.S.	998	18	20.0	143.3
			0600	T.S.	998	18	20.8	142.9
			1200	T.S.	998	18	21.4	142.8
			1800	T.S.	998	18	21.9	142.1
		29	0000	T.S.	998	18	22.6	141.5
			0600	T.S.	998	18	24.0	141.4
			1200	T.S.	998	18	24.6	140.9
			1800	T.S.	998	18	25.2	140.7
		30	0000	T.S.	998	18	25.9	140.4
			0600	T.S.	995	21	27.6	140.6
			1200	T.S.	992	23	29.3	140.9
			1800	S.T.S.	988	25	30.8	141.4
十月	Oct	1	0000	S.T.S.	980	31	32.8	141.5
			0600	S.T.S.	980	31	34.8	142.2
			1200	S.T.S.	980	31	36.8	143.4
			1800	S.T.S.	980	31	39.1	145.5
		2	0000	S.T.S.	980	31	42.3	148.9
			0600	S.T.S.	988	25	45.1	153.3
				變為溫帶氣旋 Became Extratropical				

超強颱風山陀兒(2418)的每六小時位置及強度
SIX-HOURLY POSITION AND INTENSITY DATA OF SUPER TYPHOON KRATHON (2418)

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	26	1200	T.D.	1002	13	21.8	127.6
		1800	T.D.	1002	13	21.3	127.2
	27	0000	T.D.	1002	13	20.9	126.7
		0600	T.D.	1002	13	20.2	126.2
		1200	T.D.	1000	16	19.7	125.9
		1800	T.D.	1000	16	19.0	125.7
	28	0000	T.S.	998	18	18.8	125.6
		0600	T.S.	994	21	18.6	125.4
		1200	T.S.	990	23	18.4	125.2
		1800	S.T.S.	986	25	18.5	125.0
	29	0000	S.T.S.	978	31	18.7	124.5
		0600	T.	970	36	19.4	123.9
		1200	T.	960	41	19.8	123.0
		1800	S.T.	945	49	19.9	122.4
	30	0000	SuperT.	940	52	20.1	122.1
		0600	SuperT.	935	54	20.5	121.2
		1200	SuperT.	930	57	20.5	120.5
		1800	SuperT.	920	61	20.6	120.0
十月 Oct	1	0000	SuperT.	925	59	20.7	119.6
		0600	SuperT.	925	59	20.9	119.5
		1200	SuperT.	935	54	21.3	119.3
		1800	S.T.	945	49	21.4	119.2
	2	0000	S.T.	945	49	21.5	119.4
		0600	S.T.	950	46	21.9	119.4
		1200	S.T.	955	43	22.0	119.6
		1800	T.	960	41	22.2	119.7
	3	0000	T.	965	39	22.4	120.0
		0600	T.	974	33	22.6	120.4
		1200	S.T.S.	986	25	22.7	120.5
		1500	T.S.	998	18	22.7	120.6
		1800	T.D.	1000	16	22.7	120.7
			消散 Dissipated				

熱帶風暴百里嘉(2419)的每六小時位置及強度
SIX-HOURLY POSITION AND INTENSITY DATA OF TROPICAL STORM BARIJAT (2419)

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	6	0000	T.D.	1002	13	16.7	145.6
		0600	T.D.	1002	13	17.8	145.2
		1200	T.D.	1000	16	18.4	145.4
		1800	T.D.	1000	16	19.6	145.6
	7	0000	T.D.	1000	16	20.9	146.1
		0600	T.D.	1000	16	22.0	146.6
		1200	T.D.	1000	16	23.1	147.2
		1800	T.D.	1000	16	23.9	147.2
	8	0000	T.D.	1000	16	23.9	147.0
		0600	T.D.	1000	16	23.9	147.0
		1200	T.D.	1000	16	24.0	147.4
		1800	T.D.	1000	16	24.6	148.2
	9	0000	T.D.	1000	16	25.9	149.0
		0600	T.D.	1000	16	27.6	149.4
		1200	T.S.	998	18	29.8	149.0
		1800	T.S.	998	18	31.2	149.3
	10	0000	T.S.	998	18	32.4	150.3
		0600	T.S.	998	18	34.9	150.8
		1200	T.S.	998	18	36.6	152.4
		1800	T.S.	998	18	39.5	154.0
			變為溫帶氣旋 Became Extratropical				

颱風潭美(2420)的每六小時位置及強度
SIX-HOURLY POSITION AND INTENSITY DATA OF TYPHOON TRAMI (2420)

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	20	1800	T.D.	1002	13	13.3	133.6
	21	0000	T.D.	1000	16	13.5	132.1
		0600	T.D.	1000	16	13.7	130.6
		1200	T.D.	1000	16	13.3	129.2
		1800	T.S.	998	18	13.4	128.3
	22	0000	T.S.	998	18	13.7	127.4
		0600	T.S.	995	21	14.2	126.6
		1200	T.S.	992	23	14.7	125.9
		1800	T.S.	992	23	15.3	125.1
	23	0000	T.S.	992	23	15.9	124.3
		0600	S.T.S.	988	25	16.3	123.6
		1200	S.T.S.	988	25	16.7	123.0
		1800	S.T.S.	988	25	17.2	122.2
	24	0000	S.T.S.	988	25	17.2	121.1
		0600	S.T.S.	988	25	17.2	120.4
		1200	S.T.S.	988	25	16.8	119.8
		1800	S.T.S.	988	25	16.9	119.2
	25	0000	S.T.S.	988	25	17.1	118.6
		0600	S.T.S.	988	25	17.6	117.2
		1200	S.T.S.	984	28	17.3	116.2
		1800	S.T.S.	980	31	17.4	114.7
	26	0000	S.T.S.	980	31	17.0	113.3
		0600	T.	975	33	17.1	111.9
		1200	S.T.S.	980	31	17.0	110.8
		1800	S.T.S.	988	25	16.9	109.6
	27	0000	T.S.	992	23	16.7	108.6
		0600	T.S.	995	21	15.9	107.9
		1200	T.S.	998	18	15.6	107.5
		1800	T.D.	1002	13	15.5	107.8
	28	0000	T.D.	1002	13	15.7	108.0
			消散 Dissipated				

超強颱風康妮(2421)的每六小時位置及強度
SIX-HOURLY POSITION AND INTENSITY DATA OF SUPER TYPHOON KONG-REY (2421)

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	24	0600	T.D.	1004	13	13.7	148.5
		1200	T.D.	1002	16	13.5	146.3
		1800	T.S.	1000	18	13.6	145.9
	25	0000	T.S.	1000	18	14.2	144.7
		0600	T.S.	1000	18	14.9	142.7
		1200	T.S.	1000	18	15.3	141.2
		1800	T.S.	1000	18	16.2	139.5
	26	0000	T.S.	1000	18	16.3	137.6
		0600	T.S.	1000	18	16.6	136.4
		1200	T.S.	1000	18	16.5	134.9
		1800	T.S.	1000	18	16.7	133.4
	27	0000	T.S.	1000	18	16.7	132.7
		0600	T.S.	996	21	16.5	132.2
		1200	T.S.	992	23	16.3	131.7
		1800	T.S.	992	23	16.5	130.5
	28	0000	S.T.S.	988	25	16.4	129.5
		0600	S.T.S.	984	28	16.5	128.9
		1200	S.T.S.	984	28	16.7	128.4
		1800	S.T.S.	980	31	17.2	128.0
	29	0000	T.	970	36	17.4	127.3
		0600	S.T.	955	43	17.8	126.6
		1200	S.T.	945	49	18.3	125.9
		1800	SuperT.	935	54	18.8	125.4
	30	0000	SuperT.	925	59	19.2	124.9
		0600	SuperT.	930	57	19.7	124.3
		1200	SuperT.	935	54	20.3	123.6
		1800	SuperT.	940	52	21.0	122.9
	31	0000	SuperT.	940	52	21.9	122.2
		0600	S.T.	945	49	23.1	121.3
		1200	T.	965	39	24.0	120.0
		1800	S.T.S.	984	28	25.0	120.0
十一月 Nov	1	0000	T.S.	996	21	26.6	120.6
		0600	T.S.	996	21	28.4	121.6
		0900	T.S.	996	21	29.6	122.4
			變為溫帶氣旋 Became Extratropical				

超強颱風銀杏(2422)的每六小時位置及強度
SIX-HOURLY POSITION AND INTENSITY DATA OF SUPER TYPHOON YINXING (2422)

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	3	0000	T.D.	1004	13	8.9	138.9
		0600	T.D.	1004	13	9.8	137.9
		1200	T.D.	1002	16	10.7	136.3
		1800	T.S.	1000	18	11.3	134.6
	4	0000	T.S.	996	21	12.1	133.1
		0600	T.S.	992	23	13.1	131.5
		1200	S.T.S.	988	25	14.1	130.2
		1800	S.T.S.	984	28	15.3	128.9
	5	0000	S.T.S.	980	31	16.1	127.5
		0600	T.	970	36	16.8	126.6
		1200	T.	960	41	17.4	125.9
		1800	T.	960	41	17.8	125.1
	6	0000	T.	960	41	18.0	124.7
		0600	S.T.	950	46	18.1	124.4
		1200	S.T.	945	49	18.2	124.0
		1800	SuperT.	940	52	18.3	123.5
	7	0000	SuperT.	930	57	18.5	123.0
		0600	SuperT.	920	61	18.5	122.4
		1200	SuperT.	930	57	18.6	121.5
		1800	S.T.	945	49	18.5	120.5
	8	0000	S.T.	955	43	18.3	119.3
		0600	S.T.	955	43	18.4	118.1
		1200	S.T.	955	43	18.4	117.0
		1800	S.T.	945	49	18.6	115.9
	9	0000	S.T.	945	49	18.8	115.0
		0600	SuperT.	940	52	19.0	114.2
		1200	SuperT.	940	52	19.1	113.7
		1800	SuperT.	940	52	19.1	113.4
	10	0000	S.T.	950	46	19.0	113.2
		0600	T.	960	41	18.8	113.0
		1200	T.	970	36	18.4	112.6
		1800	S.T.S.	988	25	17.8	112.0
	11	0000	T.S.	996	21	17.1	111.4
		0600	T.S.	1000	18	16.4	110.8
		1200	T.S.	1000	18	15.7	110.3
		1800	T.D.	1002	16	15.1	109.9
	12	0000	T.D.	1004	13	14.5	109.6
		0300	T.D.	1004	13	14.2	109.5
			消散 Dissipated				

超強颱風萬宜(2424)的每六小時位置及強度
SIX-HOURLY POSITION AND INTENSITY DATA OF SUPER TYPHOON MAN-YI (2424)

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	8	1800	T.D.	1002	16	12.5	161.8
	9	0000	T.S.	1000	18	13.8	160.3
		0600	T.S.	1000	18	14.5	159.2
		1200	T.S.	996	21	15.4	157.8
		1800	T.S.	996	21	15.7	156.9
	10	0000	T.S.	992	23	15.8	155.9
		0600	T.S.	992	23	15.7	155.4
		1200	T.S.	992	23	15.7	154.9
		1800	T.S.	992	23	15.4	154.0
	11	0000	T.S.	992	23	15.1	153.0
		0600	T.S.	992	23	14.8	152.5
		1200	T.S.	992	23	14.6	151.8
		1800	T.S.	992	23	14.4	150.6
	12	0000	T.S.	992	23	14.3	148.9
		0600	T.S.	992	23	14.2	147.5
		1200	T.S.	992	23	14.0	146.2
		1800	T.S.	992	23	13.4	145.0
	13	0000	T.S.	992	23	12.5	144.0
		0600	T.S.	992	23	12.4	142.8
		1200	T.S.	992	23	11.8	141.2
		1800	T.S.	992	23	11.2	139.6
	14	0000	T.S.	992	23	10.7	137.9
		0600	T.S.	992	23	10.4	136.5
		1200	S.T.S.	988	25	10.2	135.0
		1800	S.T.S.	980	31	10.2	133.5
	15	0000	T.	970	36	10.5	131.9
		0600	S.T.	955	43	10.8	130.4
		1200	S.T.	945	49	11.4	129.0
		1800	SuperT.	930	57	12.0	127.8
	16	0000	SuperT.	920	61	12.6	126.7
		0600	SuperT.	920	61	13.2	125.6
		1200	SuperT.	925	59	13.9	124.6
		1800	SuperT.	930	57	14.3	123.8
	17	0000	SuperT.	930	57	15.0	122.9
		0600	SuperT.	930	57	15.8	121.9
		1200	S.T.	955	43	16.4	120.8
		1800	T.	970	36	17.6	119.4
	18	0000	S.T.S.	980	31	18.0	118.2
		0600	S.T.S.	980	31	18.4	117.0
		1200	S.T.S.	980	31	18.6	116.1
		1800	S.T.S.	988	25	18.9	115.1
	19	0000	T.S.	992	23	19.0	114.1
		0600	T.S.	1000	18	18.7	113.0
		1200	T.D.	1004	13	18.1	112.0
		1500	T.D.	1004	13	17.9	111.7
			消散 Dissipated				

颱風桃芝(2423)的每六小時位置及強度
SIX-HOURLY POSITION AND INTENSITY DATA OF TYPHOON TORAJI (2423)

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	9	0000	T.D.	1004	13	14.4	132.8
		0600	T.D.	1002	16	14.5	131.4
		1200	T.S.	1000	18	14.7	130.2
		1800	T.S.	996	21	14.9	128.5
	10	0000	S.T.S.	988	25	15.1	126.9
		0600	S.T.S.	984	28	15.2	125.5
		1200	S.T.S.	980	31	15.5	124.4
		1800	T.	975	33	15.9	123.3
	11	0000	T.	970	36	16.3	122.3
		0600	T.	975	33	16.9	121.1
		1200	S.T.S.	980	31	17.9	120.0
		1800	S.T.S.	984	28	18.3	119.2
	12	0000	S.T.S.	988	25	18.7	118.6
		0600	S.T.S.	988	25	19.1	118.1
		1200	S.T.S.	988	25	19.5	117.6
		1800	T.S.	992	23	19.9	117.0
	13	0000	T.S.	992	23	20.3	116.3
		0600	T.S.	992	23	20.6	115.5
		1200	T.S.	992	23	20.9	115.0
		1800	T.S.	992	23	21.1	114.6
	14	0000	T.S.	996	21	21.1	114.1
		0600	T.S.	996	21	21.1	113.9
		1200	T.D.	1002	16	21.1	113.5
		1800	T.D.	1004	13	21.1	113.2
			消散 Dissipated				

超強颱風天兔(2425)的每六小時位置及強度
SIX-HOURLY POSITION AND INTENSITY DATA OF SUPER TYPHOON USAGI (2425)

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	0000	T.D.	1004	13	11.9	139.9
		0600	T.D.	1002	16	12.3	138.2
		1200	T.D.	1002	16	12.5	136.7
		1800	T.S.	1000	18	13.0	134.9
	12	0000	T.S.	1000	18	13.6	133.6
		0600	T.S.	992	23	14.0	131.9
		1200	S.T.S.	984	28	14.4	130.4
		1800	T.	975	33	14.7	128.9
	13	0000	T.	965	39	15.1	127.9
		0600	S.T.	955	43	15.6	126.4
		1200	SuperT.	940	52	16.2	125.3
		1800	SuperT.	930	57	16.6	124.0
	14	0000	SuperT.	940	52	17.2	123.1
		0600	S.T.	945	49	17.9	122.1
		1200	S.T.	955	43	18.7	121.5
		1800	T.	965	39	19.8	120.6
	15	0000	T.	970	36	20.5	120.0
		0600	S.T.S.	980	31	21.2	119.6
		1200	T.S.	992	23	21.7	119.8
		1800	T.S.	1000	18	22.1	120.0
	16	0000	T.D.	1002	16	22.5	120.2
		0300	T.D.	1004	13	22.2	120.4
			消散 Dissipated				

熱帶低氣壓帕布(2426)的每六小時位置及強度
SIX-HOURLY POSITION AND INTENSITY DATA OF TROPICAL DEPRESSION PABUK (2426)

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	22	1200	T.D.	1002	13	10.4	113.5
		1800	T.D.	1002	13	10.7	113.2
	23	0000	T.D.	1000	16	11.3	112.9
		0600	T.D.	1000	16	11.1	112.6
		1200	T.D.	1000	16	11.1	112.5
		1800	T.D.	1000	16	11.6	112.3
	24	0000	T.D.	1000	16	11.5	112.3
		0600	T.D.	1000	16	11.5	112.1
		1200	T.D.	1000	16	11.3	111.9
		1800	T.D.	1000	16	11.0	111.5
	25	0000	T.D.	1002	13	10.6	110.8
		0600	T.D.	1002	13	9.7	110.3
			消散 Dissipated				

附件一
超強颱風摩羯(2411)及颱風桃芝(2423)引致香港直接經濟損失的估算

1. 數據收集

(A) 政府部門、公共事業機構及其他組織報告的損失

香港天文台在 2024 年 12 月至 2025 年 4 月向以下的政府部門、公共事業機構及其他組織進行調查，收集超強颱風摩羯及颱風桃芝所造成的破壞及經濟損失的數據：

政府部門

漁農自然護理署、建築署、屋宇署、民航處、土木工程拓展署、渠務署、機電工程署、環境保護署、消防處、食物環境衞生署、政府產業署、路政署、民政事務總署、房屋署、地政總署、康樂及文化事務署、海事處、社會福利署、水務署。

公共事業機構及其他組織

中華電力有限公司、中國移動香港有限公司、城巴有限公司、愉景灣航運服務有限公司、環球全域電訊有限公司、香港中華煤氣有限公司、香港機場管理局、香港寬頻網絡有限公司、香港電燈有限公司、香港紅十字會、香港鐵路有限公司、香港電訊有限公司、香港電車有限公司、國際環球通訊網絡(香港)有限公司、九龍巴士(一九三三)有限公司、珀麗灣客運有限公司、新渡輪服務有限公司、信德中旅船務管理有限公司及天星小輪有限公司。

截至 2025 年 4 月 24 日，政府部門、公共事業機構及其他組織報告的損失如下：

	政府部門、公共事業機構及其他組織報告的損失（港元)
超強颱風摩羯	1,206,272
颱風桃芝	700,000

為避免與(B)保險索償數據重複計算，相關的保險索償已在數據中扣除。

(B) 保險索償數據

因超強颱風摩羯及颱風桃芝而產生的香港保險索償統計數字由香港保險業聯會根據其成員調查提供。調查的資料如下：

	參與調查的保險公司的數目	根據保險業監管局發佈的 2023 年度一般保險業務的統計數字的市場份額
超強颱風摩羯	41	62%
颱風桃芝	42	68%

(B1) 超強颱風摩羯保險索償數據

截至 2024 年 11 月 5 日，根據調查所得的保險索償數字如下：

	索償總額（港元)
(i) 財產損壞、業務中斷、工程保險 - 物料損壞	20,534,416
(ii) 僱員補償、汽車及旅遊	1,951,467

按參與調查的機構所佔的市場份額(62%)作調整，摩羯保險索償數字估計為(20,534,416 港元+ 1,951,467 港元) / 62% = 36,267,553 港元

(B2) 颱風桃芝保險索償數據

截至 2025 年 1 月 13 日，根據調查所得的保險索償數字如下：

	索償總額（港元)
(i) 財產損壞、業務中斷、工程保險 - 物料損壞	2,986,559
(ii) 僱員補償、汽車及旅遊	437,100

按參與調查的機構所佔的市場份額(68%)作調整，桃芝保險索償數字估計為(2,986,559 港元+ 437,100 港元) / 68% = 5,034,793 港元

2. 超強颱風摩羯及颱風桃芝引致直接經濟損失的估算

超強颱風摩羯引致直接經濟損失的估算是 (A)政府部門、公共事業機構及其他組織報告的損失 (扣除相關的保險索償)及 (B1)保險索償數字 (按參與調查的機構的所佔的市場份額作調整)的總和。

= 1,206,272 港元 + 36,267,553 港元

= 37,473,825 港元 (約 三千七百五十萬港元)

颱風桃芝引致直接經濟損失的估算是 (A)政府部門、公共事業機構及其他組織報告的損失 (扣除相關的保險索償)及 (B2)保險索償數字 (按參與調查的機構的所佔的市場份額作調整)的總和。

= 700,000 港元 + 5,034,793 港元

= 5,734,793 港元 (約 五百七十萬港元)

3. 免責聲明

直接經濟損失的估算是基於香港天文台向政府部門、公共事業機構及其他組織所收集的經濟損失數據、香港保險業聯會向成員收集的保險索償統計數字，以及相關政府報告所作出的。由於所收集的數據並非詳盡無遺，估算的損失亦有可能受到調查回應和分析方法的各種局限所影響，因此直接經濟損失估算僅供參考。

鳴謝

香港天文台感謝所有參與調查的政府部門、公共事業機構及其他組織、香港保險業聯會提供保險索償數字，以及政府統計處為經濟損失調查及估算方法提供的專業意見。

Annex 1
Estimated Direct Economic Losses in Hong Kong caused by Super Typhoon Yagi (2411) and Typhoon Toraji (2423)

1. Data collection

(A) Losses reported by government departments, public utility companies and other organisations

The Hong Kong Observatory conducted a survey to collect data on damages and economic losses caused by Super Typhoon Yagi and Typhoon Toraji from the following government departments, public utilities and other organisations between December 2024 and April 2025:

Government departments

Agriculture, Fisheries and Conservation Department, Architectural Services Department, Buildings Department, Civil Aviation Department, Civil Engineering and Development Department, Drainage Services Department, Electrical and Mechanical Services Department, Environmental Protection Department, Fire Services Department, Food and Environmental Hygiene Department, Government Property Agency, Highways Department, Home Affairs Department, Housing Department, Lands Department, Leisure and Cultural Services Department, Marine Department, Social Welfare Department, Water Supplies Department.

Public utility companies and other organisations

China Light and Power Company Limited, China Mobile Hong Kong Company Limited, City Bus Limited, Discovery Bay Transportation Services Limited, HGC Global Communications Limited, Hong Kong and China Gas Company Limited, Hong Kong Airport Authority, Hong Kong Broadband Network Limited, Hong Kong Electric Company Limited, Hong Kong Red Cross, Mass Transit Railway Corporation Limited, Hong Kong Telecommunications Limited, Hong Kong Tramways Limited, Reach Networks Hong Kong Limited, Kowloon Motor Bus Company (1933) Limited, Park Island Transport Company Limited, Sun Ferry Services Company Limited, Shun Tak China Travel Shipping Management Limited and the “Star” Ferry Company, Limited.

As of 24 April 2025, the losses reported from government departments, public utilities and other organisations are as follows:

	The losses reported from government departments, public utilities and other organisations (HK$)
Super Typhoon Yagi	1,206,272
Typhoon Toraji	700,000

To avoid double counting the insurance claims data in part (B), items with insurance claims covered have been excluded.

(B) Insurance claims data

The insurance claims statistics incurred by Super Typhoon Yagi and Typhoon Toraji in Hong Kong are provided by the Hong Kong Federation of Insurers (HKFI) based on its member surveys. Details of the statistics are as follows:

	Number of insurance companies participated in the survey	Market share according to the Annual Statistics for General Business 2023 issued by the Insurance Authority
Super Typhoon Yagi	41	62%
Typhoon Toraji	42	68%

(B1) Insurance claims data of Super Typhoon Yagi

The insurance claims incurred as of 5 November 2024 are as follows:

	Total claims incurred (HK$)
(i) Property Damage, Business Interruption and Contractors' All Risks (CAR)	20,534,416
(ii) Employees' Compensation (EC), Motor and Travel	1,951,467

Adjusted by market share of the participating companies (62%), the insurance claims incurred by Yagi is estimated to be (HK$ 20,534,416 + HK$ 1,951,467) / 62% = HK$ 36,267,553

(B2) Insurance claims data of Typhoon Toraji

The insurance claims incurred as of 13 January 2025 are as follows :

	Total claims incurred (HK$)
(i) Property Damage, Business Interruption and Contractors' All Risks (CAR)	2,986,559
(ii) Employees' Compensation (EC), Motor and Travel	437,100

Adjusted by market share of the participating companies (68%), the insurance claims incurred by Toraji is estimated to be (HK$ 2,986,559 + HK$ 437,100) / 68% = HK$ 5,034,793

2. Estimation of direct economic losses caused by Super Typhoon Yagi and Typhoon Toraji

The estimated direct economic losses due to Super Typhoon Yagi in Hong Kong are considered to be the sum of **(A)** total reported losses of government departments, public utilities and other organisations (net of related insurance claims) and **(B1)** insurance claims (adjusted by market share of companies participating in the survey):
= HK$ 1,206,272 + HK$ 36,267,553
= HK$ 37,473,825 (around HK$ 37.5 million)

The estimated direct economic losses due to Typhoon Toraji in Hong Kong are considered to be the sum of **(A)** total reported losses of government departments, public utilities and other organisations (net of related insurance claims) and **(B2)** insurance claims (adjusted by market share of companies participating in the survey):
= HK$ 700,000 + HK$ 5,034,793
= HK$ 5,734,793 (around HK$ 5.7 million)

3. Disclaimer

The estimated direct economic losses are based on the best available information from the responses of government departments, public utilities and other organisations to the survey conducted by the Hong Kong Observatory, statistics on insurance claims collected from the members of the Hong Kong Federation of Insurers and other relevant government reports at the time of assessment. The estimates are for reference only as the data collection are by no means exhaustive and may be subject to various limitations in the survey responses and analysis method.

Acknowledgement

The Hong Kong Observatory gratefully acknowledges the government departments, public utilities and other organisations involved in the survey, the Hong Kong Federation of Insurers for providing insurance claims, and the Census and Statistics Department for providing professional advice to the survey and analysis methods of economic losses.