

# 香港志願觀測船舶通訊 Newsletter For Hong Kong Voluntary Observing Ships

## “香港船舶天氣服務”小冊子

香港天文台編印的「香港船舶天氣服務」小冊子即將出版。

這本小冊子刊載了香港天文台為在香港海港內及公海航行的船員所提供的各種氣象服務。香港天文台為船舶所發出的各種天氣報告及其廣播時間也編印在該刊物內。

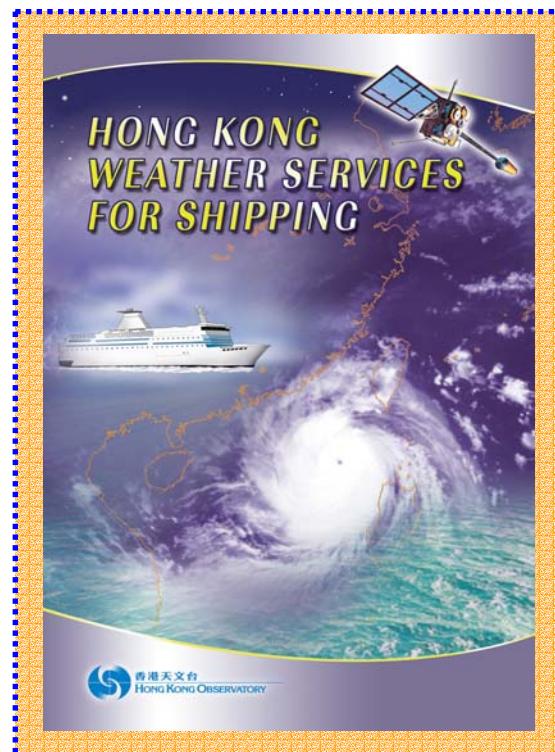
小冊子的贈本將會送給所有香港志願觀測船舶船長及本地船公司。小冊子的網上版本可在以下網址瀏覽：

[http://www.hko.gov.hk/wservice/tsheet/pms/index\\_c.htm](http://www.hko.gov.hk/wservice/tsheet/pms/index_c.htm)

### Hong Kong Weather Services for Shipping Booklet

The booklet on “Hong Kong Weather Services for Shipping” prepared by the Hong Kong Observatory will be available soon.

The booklet puts under one cover information on the weather services provided by the Hong Kong Observatory for mariners at sea and in the harbour of Hong Kong. A summary of all weather bulletins for shipping issued by the Hong Kong Observatory and their broadcast schedules can be found in the publication.



Complimentary copies of the booklet will be provided to the shipmasters of the Hong Kong Voluntary Observing Ships (HKVOS) and local shipping agents. The web version of the booklet can be viewed at the following Hong Kong Observatory website:

[http://www.hko.gov.hk/wservice/tsheet/pms/index\\_e.htm](http://www.hko.gov.hk/wservice/tsheet/pms/index_e.htm)

## 香港天文台網上發放預測天氣圖

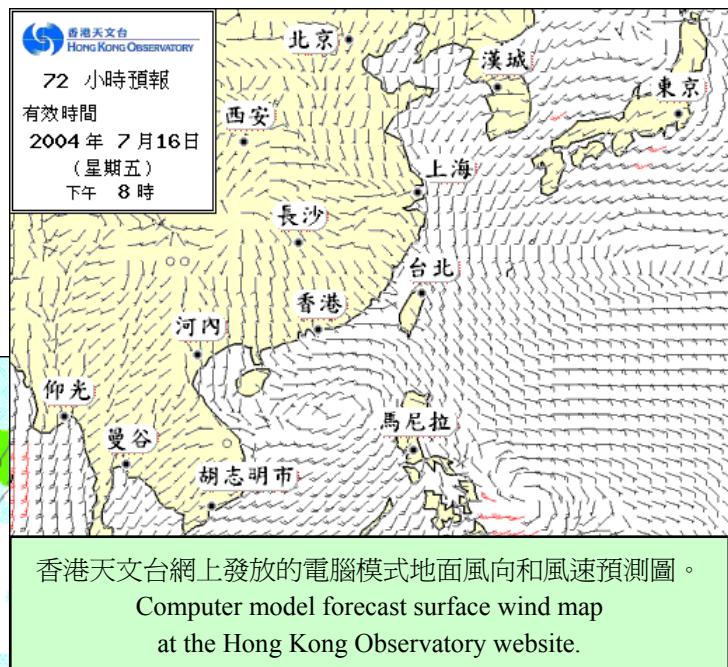
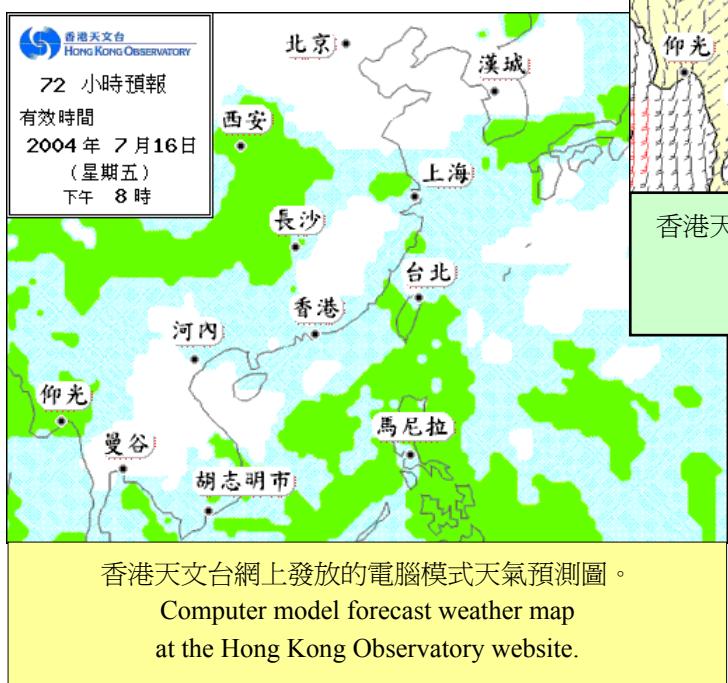
香港天文台除了提供每日的天氣圖外，亦已開始在網上發放由高速電腦計算出來的預測天氣圖。

這些預測天氣圖將可幫助船員了解未來兩三天在中國南海和太平洋西部的天氣趨勢。

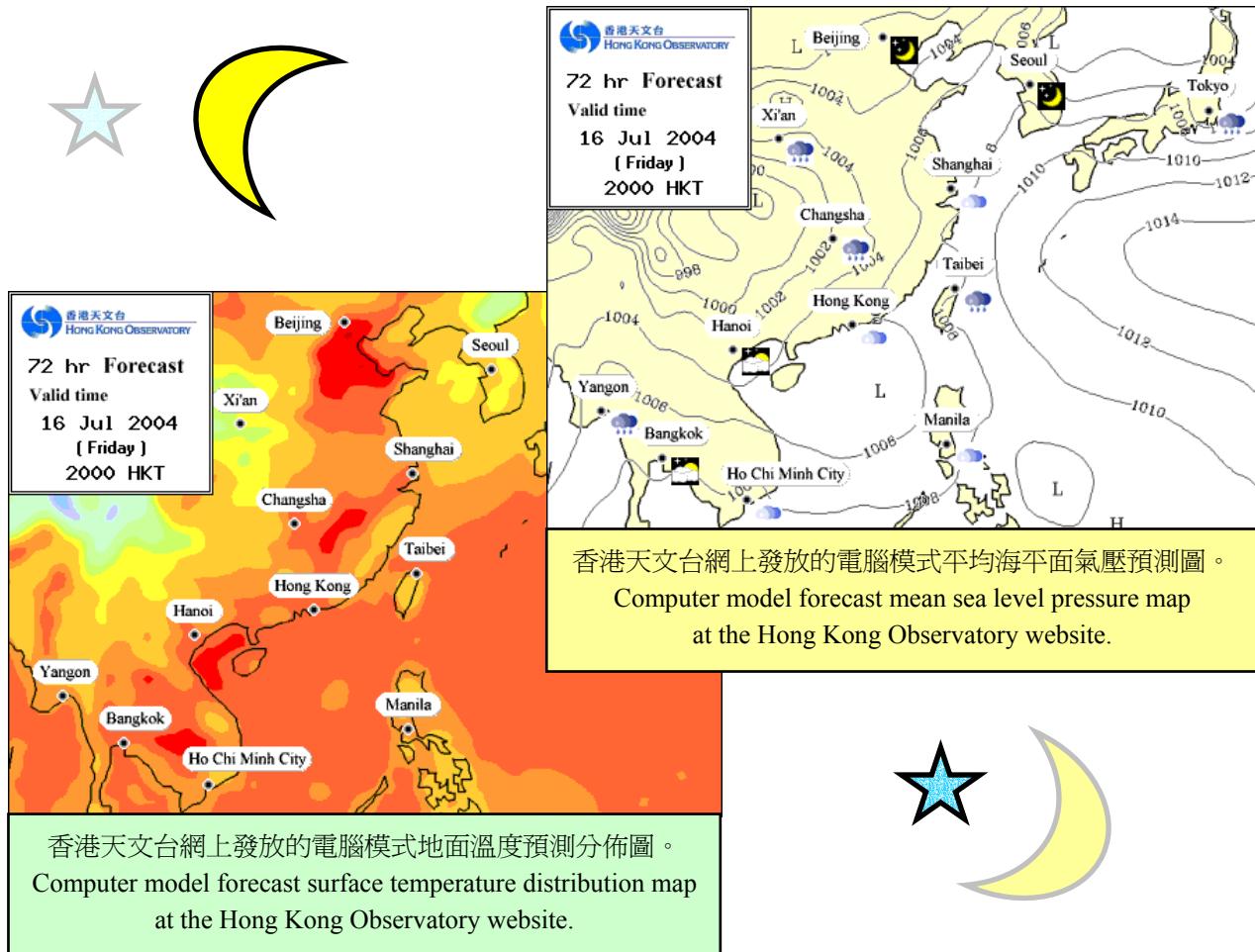
預測天氣圖的內容包括預報各地區的地面氣溫、地面風向及風速、平均海平面氣壓及天氣的大致情況。預測天氣圖每天更新兩次。

預測天氣圖可在以下網址瀏覽：

<http://www.hko.gov.hk/cgi-bin/hko/nwp.pl?lang=c>



## Forecast Weather Maps at Hong Kong Observatory Website



In addition to the provision of daily weather charts, the Hong Kong Observatory launches in its website forecast weather maps generated by the Observatory's high-speed computer.

The forecast weather maps will help the mariners to understand the trends in weather conditions over a period of two to three days in the South China Sea and the western Pacific region.

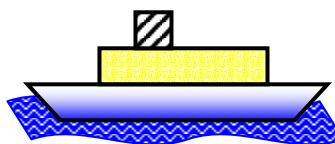
The forecast elements include surface air temperature, surface wind speed and wind direction, mean sea level pressure and the state of sky at various locations. The information in the map is updated twice daily.

The forecast weather maps can be viewed at the following website:

<http://www.hko.gov.hk/cgi-bin/hko/nwp.pl?lang=e>

新會員

## ► 香港志願觀測船舶五位新成員



過去一年共有 5 艘貨櫃船加入香港志願觀測船隊。我們非常感謝「OOCL Long Beach」的鄧耀祖船長、「OOCL Qingdao」的楊平船長、「Maersk Gairloch」的 Keith Townley 船長、「OOCL Rotterdam」的李建雄船長和「OOCL Hamburg」的 David Roger Llewellyn 船長對香港志願觀測船舶規劃的支持。

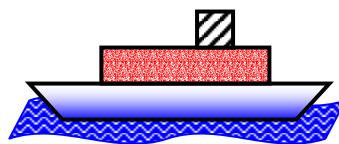
香港天文台現維持一隊為數 44 艘以本港為基地的志願天氣觀測船隊來提供海上天氣觀測報告。這些天氣觀測報告乃天氣分析的重要資料，對制定海洋區域天氣預報和準時發出天氣警告尤為重要。

我們歡迎其他定期在香港停泊的船舶參加香港志願觀測船隊規劃。詳情請聯絡我們的海港氣象主任或瀏覽以下網址：

[http://www.hko.gov.hk/wservice/tsheet/pms/images/HKVOS\\_recruit\\_c.pdf](http://www.hko.gov.hk/wservice/tsheet/pms/images/HKVOS_recruit_c.pdf)

NEW MEMBER

## ► Five New Members of HKVOS



Five container ships joined the HKVOS scheme during the past year. We are very grateful to Captain Tang Yiu Tzu (M.V. OOCL Long Beach), Captain Yan Ping (M.V. OOCL Qingdao), Captain Keith Townley (M.V. Maersk Gairloch), Captain Lee Kin Hung (M.V. OOCL Rotterdam) and Captain David Roger Llewellyn (M.V. OOCL Hamburg) for their enthusiastic support to the scheme.

The Hong Kong Observatory currently maintains a fleet of 44 locally based merchant ships to make weather observations at sea. These weather observations provide vital information for weather analysis and are especially important for the preparation of weather forecasts and timely issuance of warnings for the sea areas.

Any ships calling at Hong Kong on a regular basis are welcome to join the HKVOS scheme. Please contact our Port Meteorological Officer or visit the following website for more information:

[http://www.hko.gov.hk/wservice/tsheet/pms/images/HKVOS\\_recruit\\_e.pdf](http://www.hko.gov.hk/wservice/tsheet/pms/images/HKVOS_recruit_e.pdf)



## 新增熱帶氣旋名字

二零零四年一月一日起，西北太平洋和南海的熱帶氣旋名單上，加入了 4 個新的名字。它們包括由中國澳門提出的「琵琶」(一種在澳門受歡迎的寵物魚)、馬來西亞提出的「鸚鵡」(馬來語名稱指一種藍色冠羽的鸚鵡)、菲律賓提出的「莫拉菲」(菲律賓一種常用於製造傢俬的硬木) 和美國提出的「麥德姆」(大雨的意思)。這些新名字分別替代「畫眉」、「鹿莎」、「伊布都」和「查特安」。

名單內共有 140 個熱帶氣旋名字，由颱風委員會的 14 個會員國家或地區所提供之。按現時慣例，當熱帶氣旋在某地造成嚴重傷亡及破壞，有關國家或地區可向颱風委員會要求刪除該熱帶氣旋名字，由其他名字補上。

新名單內的熱帶氣旋名字及其註解可在以下天文台網頁內查閱：

<http://www.hko.gov.hk/informtc/sound/tcname2004c.htm>



## New Tropical Cyclone Names in Use

Since 1 January 2004, four new members have been included in the list of tropical cyclone names for the western North Pacific and the South China Sea. The new names are "Peipah" (a popular pet fish in Macau) from Macau, China, "Nuri" (a blue crowned parakeet in the Malay language) from Malaysia, "Molave" (a popular hardwood used in furniture) from the Philippines and "Matmo" (meaning heavy rain) from Guam, USA. These new names replace "Vamei", "Rusa", "Imbudo" and "Chataan" respectively.

The list consists of 140 tropical cyclone names contributed by 14 member countries and territories of the Typhoon Committee. According to present practice, the member countries and territories concerned may request the Typhoon Committee to delete the names of tropical cyclones that have inflicted severe damage and loss of life from the list and replace them with new ones.

The new list of tropical cyclone names and their meanings can be found at the following Hong Kong Observatory website:

<http://www.hko.gov.hk/informtc/sound/tcname2004e.htm>

## 颱風杜鵑 — 雙重眼壁的颱風

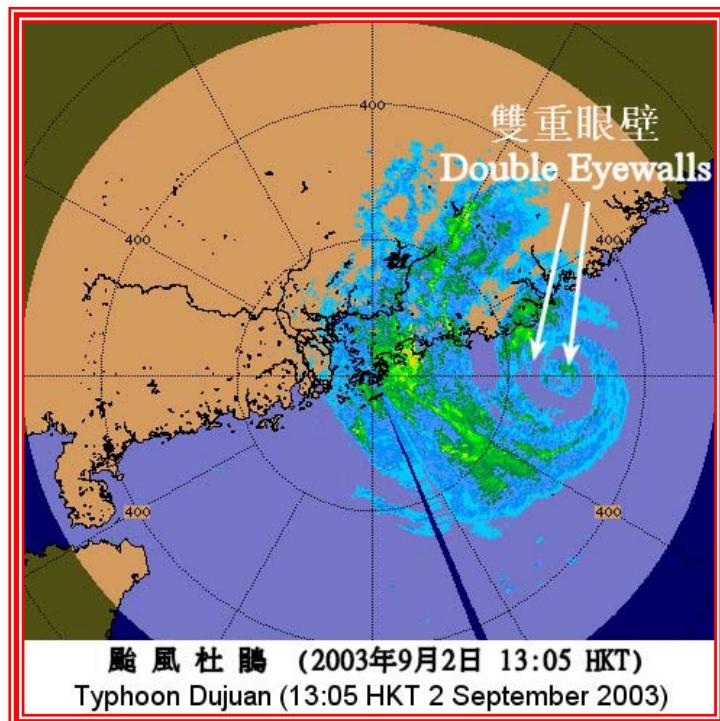
二零零三年九月二日當颱風杜鵑移近華南海岸時，香港天文台的雷達顯示出它曾出現雙重眼壁結構，杜鵑內眼及外眼的直徑分別約為 20 公里及 100 公里。

眼壁是最接近颱風中心的環型對流雨帶，該處的風力最強及雨勢最大。通常颱風只有一個眼壁，但不少成熟及強烈的颱風會出現雙重眼壁結構。在西太平洋，有雙重眼壁結構的颱風並不少見，如二零零零年的颱風鴻雁及颱風啓德便是近年的例子。

當強烈的颱風出現雙重眼壁結構時，它們通常是處於「眼壁更替週期」：新的眼壁發展，替代當時的舊眼壁。雙重眼壁結構會維持約一至兩日，通常表示颱風該次增強週期接近完結。

## Dujuan - a Typhoon with Double Eye Walls

On 2 September 2003, a double-eye-walled structure of Typhoon Dujuan was observed by the Hong Kong Observatory's radar when it moved towards the South China coast. The diameters of the inner and outer eyes of Dujuan were about 20 km and 100 km respectively.



The eye wall is the innermost ring of convective rain band near the centre of a typhoon. It is where the most intense winds and fiercest rain occur. While most typhoons have a single eye wall, many strong and mature typhoons develop a double-eye-walled structure. In the west Pacific, development of the double-eye-walled structure was not rare. It was observed in Typhoon Kirogi and Typhoon Kai-Tai in 2000.

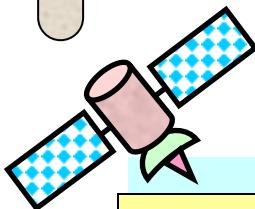
When strong typhoons show a double-eye-walled structure, they are often in the process of undergoing an "eye wall replacement cycle" where a new eye wall develops and replaces an existing one. The double-eye-walled structure usually marks the end of an episode of intensification and may last for a day or two.

## Inmarsat-C 衛星海岸台名單

船員或許會留意到 Inmarsat 服務編碼 41 可以用來免費發出船舶天氣報告給衛星海岸台，而衛星海岸台則會轉傳天氣報告給相關的氣象中心。以下顯示各區域接受使用服務編碼 41 的 Inmarsat-C 衛星海岸台。

### List of Inmarsat-C Coast Earth Stations

Deck officers may be aware that ship weather reports can be disseminated to a Coast Earth Station (CES) at no cost to ships by using an Inmarsat service code 41 for routing the reports to the related meteorological centre. A list of Inmarsat-C CES in different regions accepting code 41 is shown below:



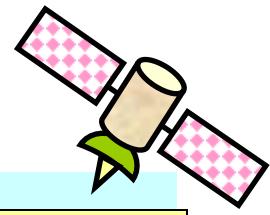
大西洋東部區域 Atlantic Ocean Region-East

國家 Country	台站名稱 Station name	識別編碼 Identity code
法國 France	Aussaguel	121
德國 Germany	Raisting	115
希臘 Greece	Thermopylae	120
荷蘭 Netherlands	Station 12	112
英國 UK	Goonhilly	102
美國 USA	Southbury	101



大西洋西部區域 Atlantic Ocean Region-West

國家 Country	台站名稱 Station name	識別編碼 Identity code
荷蘭 Netherlands	Station 12	012
英國 UK	Goonhilly	002
美國 USA	Southbury	001



印度洋區域 Indian Ocean Region

國家 Country	台站名稱 Station name	識別編碼 Identity code
澳洲 Australia	Perth	322
法國 France	Aussaguel	321
德國 Germany	Raisting	333
希臘 Greece	Thermopylae	305
日本 Japan	Yamaguchi	303
荷蘭 Netherlands	Station 12	312
新加坡 Singapore	Sentosa	328



太平洋區域 Pacific Ocean Region

國家 Country	台站名稱 Station name	識別編碼 Identity
澳洲 Australia	Perth	222
日本 Japan	Yamaguchi	203
新加坡 Singapore	Sentosa	210
美國 USA	Santa Paula	201

Inmarsat-C 衛星海岸台名單

List of Inmarsat-C Coast Earth Stations

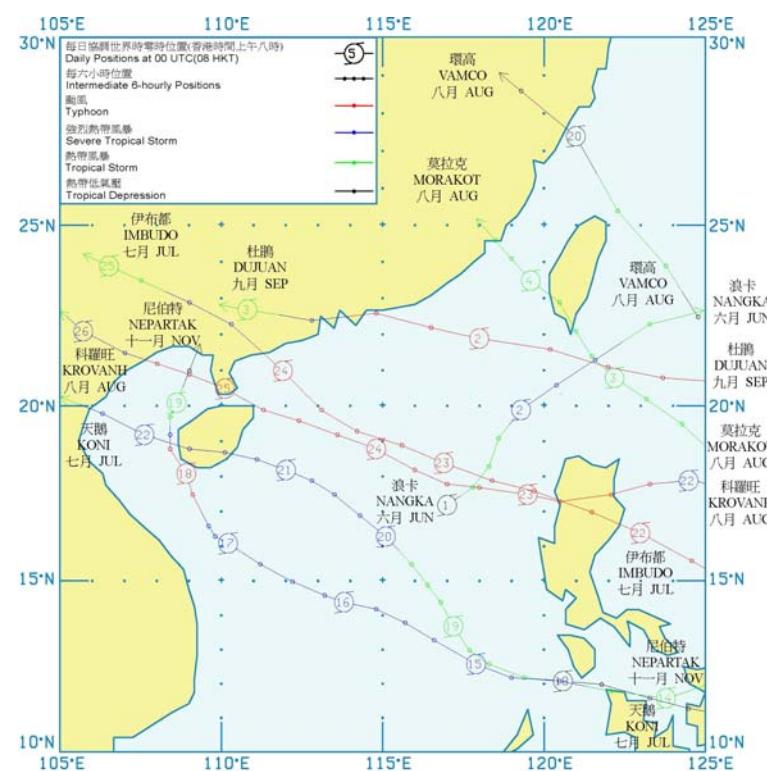
## 二零零三年南海區域內熱帶氣旋摘要

二零零三年共有 8 個熱帶氣旋影響南海區域（即北緯 10 至 25 度、東經 105 至 120 度所包括的地區），比年平均的 12 個為少。當中有 2 個熱帶氣旋在南海形成，其餘 6 個從北太平洋西部進入南海。以下是二零零三年其中 5 個熱帶氣旋的概要，它們令到繁忙的南海航道上出現烈風或以上的風力。

天鵝於七月十六日在馬尼拉東南偏東約 1 000 公里發展成熱帶低氣壓。它在七月十八日進入南海後增強為熱帶風暴。天鵝於七月十九日轉向西北，翌日進一步增強為強烈熱帶風暴，中心風力達每小時 100 公里。它於七月二十一日向西北偏西推進，並於當晚橫過海南島。天鵝於七月二十二日進入北部灣，晚上在越南北部登陸後減弱為熱帶風暴。天鵝於七月二十三日清晨在內陸進一步減弱為熱帶低氣壓，同日稍後在河內以西約 100 公里處消散。

伊布都於七月十七日在關島西南約 730 公里處發展為熱帶低氣壓。它大致向西北偏西移動，於當晚增強為熱帶風暴。伊布都於七月十九日增強為強烈熱帶風暴後，翌日進一步增強為颱風，其中心附近的最高風速在七月二十一日達每小時 185 公里。伊布都在七月二十二日晚上進入南海後繼續向西北偏西移動，直趨華南沿岸，七月二十四日早上它在廣東西部的陽江附近登陸後減弱為強烈熱帶風暴。伊布都於七月二十五日早上在內陸減弱為熱帶風暴，同日稍後在廣西消散。

科羅旺於八月十七日在關島西南偏南約 110 公里處發展為熱帶低氣壓。科羅旺於八月二十日晚上增強為熱帶風暴後，翌日晚上進一步增強為強烈熱帶風暴。它於八月二十二日增強為颱風，並於當晚橫過呂宋。科羅旺在八月二十三日早上進入南海後向西北偏西推進，翌日橫過南海北部。科羅旺在掠過海南島東北部後，於八月二十五日進入



二零零三年影響南海的熱帶氣旋路徑圖。

The map showing the tracks of tropical cyclones over the South China Sea in 2003.

北部灣。科羅旺於七月二十六日清晨在越南北部登陸後減弱為強烈熱帶風暴，同日進一步減弱為熱帶風暴，並於當晚在內陸消散。

杜鵑於八月二十九日清晨在關島西北偏西約 990 公里的太平洋上發展成熱帶低氣壓。它初時移動緩慢，在八月三十日清晨增強為熱帶風暴，並在當日進一步增強為強烈熱帶風暴。八月三十一日它向西北偏西加速移動，同日增強為颱風並移向台灣南部海域。九月一日，杜鵑橫過台灣以南海域後向西推進趨向華南海岸，期間它中心附近的最高持續風速達每小時 175 公里。杜鵑於九月二日清晨進入南海，並向西移近廣東沿岸。九月二日晚上，杜鵑在香港以北掠過，正面吹襲深圳市。隨後杜鵑繼續向西移動橫過廣東，於九月三日早上減弱為熱帶風暴，其後在廣西減弱為低壓區。

尼伯特於十一月十二日晚上在雅浦島西北偏西約 530 公里處發展成熱帶低氣壓。它向西移動，十一月十三日增強為熱帶風暴。十一月十四日，尼伯特橫過菲律賓中部後進入中國南海。它於十一月十五日增強為強烈熱帶風暴後向西北移動。十一月十七日 0000 UTC，一艘香港志願觀測船舶「[OOCL Netherlands](#)」（呼號 VRVN6）於尼伯特之西北約 101 公里處，報告北風 40 海里。十一月十八日清晨尼伯特達到颱風強度，同日掠過海南島西部，晚上減弱為強烈熱帶風暴。尼伯特於十一月十九日在北部灣逐步減弱為低壓區。

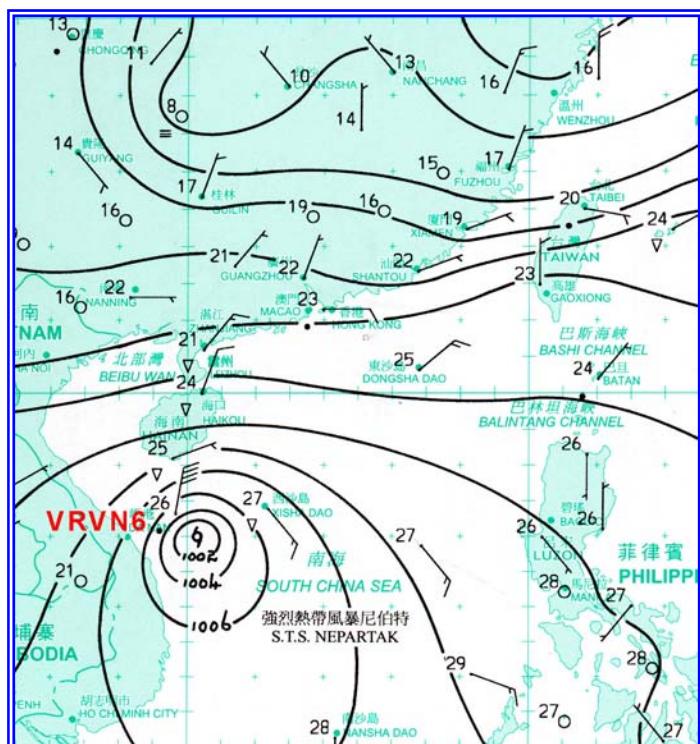
二零零三年影響南海的熱帶氣旋 List of tropical cyclones affecting the South China Sea in 2003				
熱帶氣旋名稱 Name of tropical cyclone	形成日期 (日/月) Formation date (day/month)	消散日期 (日/月) Dissipation date (day/month)	中心附近最高風力 (公里每小時) Maximum sustained wind speed near the centre (km/h)	最低氣壓 (百帕斯卡) Minimum sea-level pressure (hPa)
強烈熱帶風暴浪卡 Severe Tropical Storm Nangka	1 / 6	4 / 6	90	985
強烈熱帶風暴天鵝 Severe Tropical Storm Koni	16 / 7	22 / 7	100	980
颱風伊布都 Typhoon Imbudo	17 / 7	25 / 7	185	930
熱帶風暴莫拉克 Tropical Storm Morakot	2 / 8	4 / 8	85	990
颱風科羅旺 Typhoon Krovanh	17 / 8	26 / 8	140	960
熱帶風暴環高 Tropical Storm Vamco	19 / 8	20 / 8	65	992
颱風杜鵑 Typhoon Dujuan	28 / 8	3 / 9	175	940
颱風尼伯特 Typhoon Nepartak	12 / 11	19 / 11	130	965

## Summary of Tropical Cyclones over the South China Sea in 2003

In 2003, eight tropical cyclones affected the South China Sea, the area bounded by 10°N and 25°N, 105°E and 120°E. This was less than the normal of 12 a year. Two of these tropical cyclones formed in the South China Sea. The other six moved into the South China Sea from the western North Pacific. A brief summary of five tropical cyclones that brought gale force wind or above to the busy shipping lanes over the South China Sea in 2003 is given below:

Koni developed as a tropical depression (TD) about 1 000 km east-southeast of Manila on 16 July. Koni entered the South China Sea and intensified into a tropical storm (TS) on 18 July. On 19 July, it turned to the northwest. Koni intensified further into a severe tropical storm (STS) and attained a maximum wind speed of about 100 km/h near its centre on 20 July. On 21 July, it moved towards west-northwest and traversed Hainan that night. Koni entered Beibu Wan on 22 July and then weakened into a TS after making landfall in northern Vietnam that night. Over land, Koni further weakened into a TD in the early morning of 23 July and dissipated about 100 km west of Hanoi the same day.

Imbudo developed as a TD about 730 km southwest of Guam on 17 July. Tracking towards the west-northwest, it intensified into a TD the same night. Imbudo became an STS on 19 July and further strengthened into a typhoon the next day with a maximum wind speed reaching about 185 km/h near its centre on 21 July. Imbudo swept through Luzon on 22 July. Imbudo entered the South China Sea on 22 July night and continued to move west-northwestwards towards the South China coast. In the morning of 24 July, it made landfall near Yangjiang of western Guangdong and then weakened into an STS. Imbudo weakened into a TS over land in the morning of 25 July and dissipated in Guangxi the same day.



二零零三年十一月十七日 0000 UTC 的天氣圖，當中顯示熱帶氣旋尼伯特的位置，一艘船舶在其西北方報告北風 40 海里。

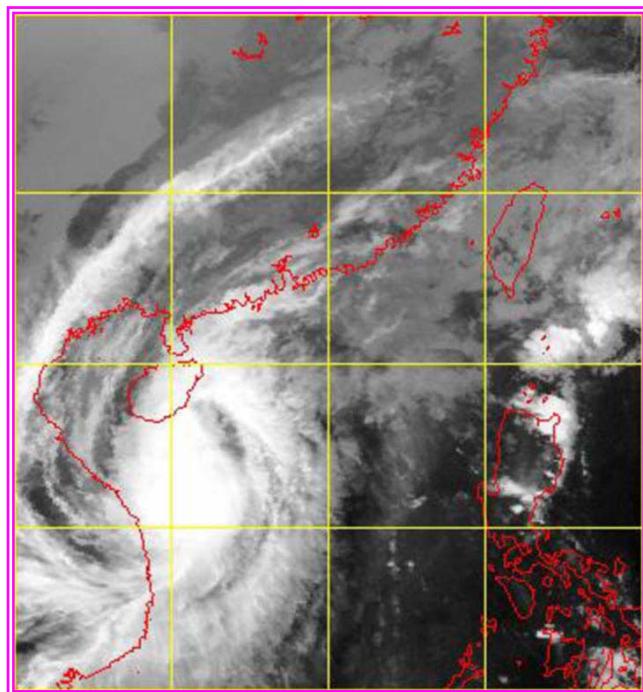
A daily weather map at 0000 UTC on 17 November 2003 showing the position of the tropical cyclone Nepartak and a ship report of 40 knots northerly winds to its northwest.

Krovanh developed as a TD about 110 km south-southwest of Guam on 17 August. Krovanh intensified into a TS on 20 August night and further intensified into an

STS the next night. It reached typhoon strength on 22 August and moved across Luzon that night. Adopting a west-northwest track, Krovanh entered the South China Sea on 23 August morning and moved across the northern part of the South China Sea the next day. After skirting the northeastern part of Hainan, Krovanh entered Beibu Wan on 25 August. Krovanh weakened into an STS in the early morning on 26 August after making landfall over northern Vietnam. It further weakened into a TS the same day and dissipated inland that night.

Dujuan developed as a TD about 990 km west-northwest of Guam over the Pacific in the early morning of 29 August and was slow-moving. It intensified into a TS in the early morning of 30 August and strengthened further into an STS the same day. Accelerating towards the west-northwest on 31 August, Dujuan attained typhoon strength and moved towards the seas near southern Taiwan. After crossing the seas south of Taiwan on 1 September, Dujuan headed westwards towards the South China coast. The maximum sustained wind speed near its centre reached 175 km/h. Dujuan entered the South China Sea in the early morning of 2 September and moved westwards towards the coast of Guangdong. On 2 September night, Dujuan skirted the north of Hong Kong and hit Shenzhen. It then continued to move westwards crossing Guangdong. Dujuan weakened rapidly into a TS in the morning of 3 September and became an area of low pressure over Guangxi afterward.

Nepartak formed as a TD about 530 km west-northwest of Yap on the night of 12 November. Tracking westwards, it intensified into a TS on 13 November. On 14 November, Nepartak moved across the central part of the Philippines and entered the South China Sea. On 15 November, it intensified into an STS and tracked northwestwards. The HKVOS “[OOCL Netherlands](#)” (call sign VRVN6) reported 40 knots northerly winds about 101 km northwest of Nepartak at 0000 UTC on 17 November. Nepartak attained typhoon strength in the early morning of 18 November. It skirted western Hainan the same day and weakened gradually into an STS that night. Nepartak weakened further and became an area of low pressure over Beibu Wan on 19 November.



二零零三年十一月十七日 0000 UTC 的紅外線衛星圖，當中顯示熱帶氣旋尼伯特移近海南島時的外圍雨帶。  
(美國國家海洋及大氣管理局提供)

An infra-red satellite imagery captured at 0000 UTC on 17 November 2003 showing the outer rain bands of the tropical cyclone Nepartak when it moved towards the Hainan Island. (courtesy of the National Oceanic and Atmospheric Administration)

## 香港志願觀測船舶名表 HKVOS Honour Roll

截至二零零四年七月八日，香港志願觀測船隊共有 44 艘船舶，船名如下：

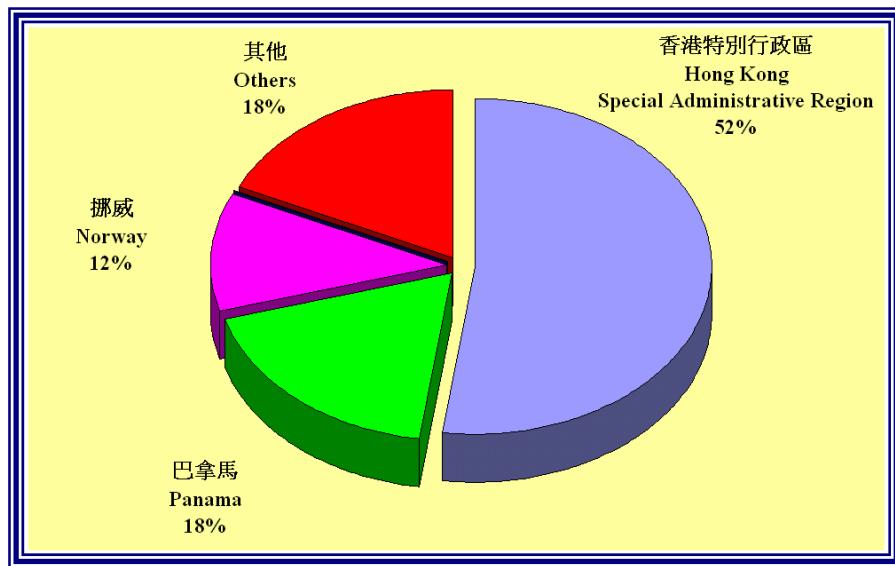
As at 8 July 2004, there were 44 ships in the fleet of HKVOS. In alphabetical order, the ships in this fleet were:

Aegean Leader	Al Mariyah	Anna	Asimont	Bunga Pelangi Dua
Cap Colville	Cleopatra Dream	En Yuan	Grand Noble	Hai Kang
K.I.A. Waleed	Kwang Tung	Maersk Gairloch	MOL Oasis	OOCL America
OOCL California	OOCL Chicago	OOCL China	OOCL Exporter	OOCL Fair
OOCL Faith	OOCL Fidelity	OOCL Fortune	OOCL Freedom	OOCL Friendship
OOCL Hamburg	OOCL Hong Kong	OOCL Japan	OOCL Long Beach	OOCL Netherlands
OOCL QingDao	OOCL Rotterdam	OOCL San Francisco	OOCL Shenzhen	OOCL Singapore
Seafalcon	Seamaster	Star Pisces	SuperStar Leo	Talabot
Tampa	Tapiola	Texas	Toba	

## 註冊地點 Where Registered

下圖顯示香港志願觀測船舶的註冊地點分佈。

The pie chart below shows the places of registration of HKVOS.



## 船名更改 Ship Name Change

舊船名 Old name	新船名 New Name
Harmony Container	Cap Colville

## 世界各地的海港氣象主任 Port Meteorological Officers

名單上的海港氣象主任可為志願觀測船舶提供海港氣象服務。

The following is a list of PMOs from whom port meteorological services may be obtained.

### 澳大利亞 AUSTRALIA

#### Head Office

Graeme Ball  
Manager, Marine Observations Unit  
Bureau of Meteorology  
GPO Box 1289K MELBOURNE, Vic.3001  
Tel: (03) 9669 4203  
Fax: (03) 9669 4168  
E-mail: g.ball@bom.gov.au

#### Fremantle

Malcolm (Mal) Young  
Port Meteorological Agent  
c/o West Australian Regional Office  
Bureau of Meteorology  
PO Box 1370 WEST PERTH WA 6872  
Tel: (08) 9474 1974  
Fax: (08) 6210 1801  
E-mail: malyoung@iinet.net.au

#### Melbourne

Michael J. Hills  
Port Meteorological Agent  
c/o Victoria Regional Office  
Bureau of Meteorology  
150 Lonsdale, 26th Floor  
PO Box 1636M MELBOURNE, Vic.3001  
Tel: (03) 9669 4982  
Fax: (03) 9663 2059  
E-mail: m.hills@bom.gov.au

#### Sydney

Captain Einion E. (Taffy) Rowlands  
Port Meteorological Agent  
c/o New South Wales Regional Office  
Bureau of Meteorology  
PO Box 413 DARLINGHURST NSW 2010  
Tel: (02) 9296 1547  
Fax: (02) 9296 1589  
E-mail: e.rowlands@bom.gov.au

### 加拿大 CANADA

#### Ontario

Randy Mawson, Acting Supt.  
Marine Data Unit  
Meteorological Service of Canada  
Port Meteorological Office  
100 East Port Blvd.  
Hamilton, Ontario L8H 7S4  
Tel: 905 312 0900  
Fax: 905 312 0730  
E-mail: randy.mawson@ec.gc.ca

#### Nova Scotia

Randy Sheppard, PMO  
Meteorological Service of Canada  
16th Floor, 45 Aldernay Drive  
Dartmouth, Nova Scotia B2Y 2N6  
Tel: 902 426 6703  
E-mail: randy.sheppard@ec.gc.ca

### Newfoundland

Jack Cossar, PMO  
Meteorological Service of Canada  
6 Bruce Street  
St. John's Newfoundland A1N 4T3  
Tel: 709 722 4798  
Fax: 709 722 5097  
E-mail: jack.cossar@ec.gc.ca

### British Columbia

Micheal Riley, PMO  
Meteorological Service of Canada  
700-1200, West 73rd Avenue  
Vancouver, British Columbia V6P 6H9  
Tel: 604 664 9136  
Fax: 604 664 9195  
Telex: 04 508556  
E-mail: mike.riley@ec.gc.ca

### 中國 CHINA

**香港特別行政區**  
**Hong Kong Special Administrative Region**  
C.F. Wong, PMO  
Hong Kong Observatory  
134A Nathan Road  
Kowloon, Hong Kong  
Tel: (852) 2926 3113  
Fax: (852) 2311 9448  
Telex: 54777 GEOPH HX  
E-mail: hkpmo@hko.gov.hk

### 丹麥 DENMARK

Cmdr Roi Jespersen PMO  
Observation Department  
Radiosonde and Ship Observation Division  
Lyngbyvej 100 DK-2100 COPENHAGEN  
Tel: (45) 39 15 7337  
Fax: (45) 39 15 7390  
E-mail: rj@dmi.dk

### 福克蘭 FALKLANDS

Captain R. Gorbutt Marine Officer  
Fishery Protection Office  
Port Stanley  
Tel: 500 27260  
Fax: 500 27265  
Telex: 2426 FISHDIR FK

### 法國 FRANCE

Louis Stéphan  
Station météorologique  
16, quai de la douane  
29200 BREST  
Tel: (33) 2 98 44 60 21  
Fax: (33) 2 98 44 60 21  
E-mail: louis.stephan@meteo.fr

### 德國 GERMANY

**Headquarters**  
Volker Weidner PMO Advisor  
Deutscher Wetterdienst  
Bernard-Nocht-Strasse 76  
D-20359 HAMBURG  
Tel: +49 40 6690 1410  
Fax: +49-40 6690 1496  
E-mail: pmo@dwd.de

### Bremerhaven

Henning Hesse PMO  
Deutscher Wetterdienst  
An der Neuen Schleuse 10b  
D-27570 BREMERHAVEN  
Tel: +49-471 70040 18  
Fax: +49-471 70040 17  
E-mail: pmo@dwd.de

### 直布羅陀 GIBRALTAR

Principal Meteorological Officer  
Meteorological Office  
RAF Gibraltar, BFPO 52  
Tel: 350 53419  
Fax: 350 53474

### 希臘 GREECE

Michael Myrsilidis  
Marine Meteorology Section  
Hellenic National Meteorological Service (HNMS)  
El. Venizelou Str. 14  
Hellenikon 16777 ATHENS  
Tel: (301) 96 99013  
Fax: (301) 96 28952/9649646  
E-mail: mmirsi@hnms.gr

### 日本 JAPAN

**Headquarters**  
Dr Kazuhiko Hayashi  
Scientific Officer  
Marine Division  
Climate and Marine Department  
Japan Meteorological Agency  
1-3-4, Otemachi, Chiyoda-ku  
TOKYO 100-8122  
Tel: +81-3 3212 8341 ext. 5144  
Fax: +81-3 3211 6908  
E-mail: hayashik@met.kishou.go.jp  
VOS@climar.kishou.go.jp

### Kobe

PMO Kobe Marine Observatory  
1-4-3, Wakinohamakagan-dori, Chuo-ku  
KOBE 651-0073  
Tel: +81-78 222 8918  
Fax: +81-78 222 8946

### Nagoya

PMO Nagoya Local Meteorological Observatory  
2-18, Hiyori-ho, Chigusa-ku  
NAGOYA 464-0039  
Tel: +81-52 752 6364  
Fax: +81-52 762 1242

### Yokohama

PMO Yokohama Local Meteorological Observatory  
99 Yamate-cho, Naka-ku  
YOKOHAMA 231-0862  
Tel: +81-45 621 1991  
Fax: +81-45 622 3520  
Telex: 2222163

### 肯尼亞 KENYA

Ali Juma Mafimbo  
Port Meteorological Office  
Meteorological Department  
Box 30259 NAIROBI  
Tel: +254-2 576957 / 567880-4  
Fax: +254-2 576955 / 577373  
E-mail: mafimbo@yahoo.com

### 馬來西亞 MALAYSIA

#### Bintulu

Paul Chong Ah Poh PMO  
Bintulu Meteorological Station  
P.O. Box 285  
97007 BINTULU Sarawak  
Fax: +60-86 314 386

#### Klang

Mohd Shah Ani PMO  
Malaysian Meteorological Service  
Jalan Sultan  
46667 PETALING JAYA Selangor  
Fax: +60-3 7957 8046

#### Kota Kinabalu

Mohd Sha Ebung PMO  
Malaysian Meteorological Service  
7th Floor, Wisma Dang Bandang  
P.O. Box 54  
88995 KOTA KINABALU Sabah  
Fax: +60-88 211 019

### 毛里求斯 MAURITIUS

Port Louis Meteorological Services  
St. Paul Road VACOAS Mauritius  
Tel: +230 686 1031/32  
Fax: +230 686 1033  
E-mail: meteo@intnet.mu

### 荷蘭 NETHERLANDS

John W. Schaap PMO  
KNM I/ PMO-Office  
Postbus 201  
NL-3730 AE DE BILT  
Tel: +31-30 2206391  
Fax: +31-30 2210849  
E-mail: Schaap@knmi.nl

### 新西蘭 NEW ZEALAND

Julie Fletcher  
MetService  
P.O. Box 722 WELLINGTON  
Tel: +64-4 472 9379  
Fax: +64-4 473 5231  
E-mail: fletcher@metservice.com

### 挪威 NORWAY

Tor Inge Mathiesen PMO  
Norwegian Meteorological Institute  
Allégeten 70  
N-5007 BERGEN  
Tel: +47-55 236600  
Fax: +47-55 236703  
Telex: 40427/42239

### 沙特阿拉伯 SAUDI ARABIA

Mahmoud M. Rajkhan PMO  
Meteorology and Environmental Protection  
Administration (MEPA)  
P.O. Box 1358 JEDDAH 21431  
Tel: +966-2 6512312 ext. 2252 or 2564

### 新加坡 SINGAPORE

Edmund Lee Mun San  
Port Meteorological Supervisor  
Meteorological Service  
P.O. Box 8  
Singapore Changi Airport  
Singapore 9181  
Tel: 5457198  
Fax: +65 5457192  
Telex: RS50345 METSIN

### 南非 SOUTH AFRICA

Cape Town  
C. Sydney Marais PMO  
Cape Town Regional Weather Office  
Cape Town International Airport  
CAPE TOWN 7525  
Tel: +27-21 934 0836  
Fax: +27-21 934 3296  
E-mail: maritime@weathersa.co.za

### Durban

Fergus McKay PMO  
Durban Regional Weather Office  
Durban International Airport  
DURBAN 4029  
Tel: +27-31 408 1446  
Fax: +27-31 408 1445  
E-mail: mckay@weathersa.co.za

### 英國 UNITED KINGDOM

#### Headquarters

Captain Edward J. O'Sullivan  
Manager, Marine Networks Met Office  
Observations Supply - Marine Networks  
Beaufort Park Easthampstead  
WOKINGHAM, Berkshire RG40 3DN  
Tel: +44-1344 85 5723  
Fax: +44-1344 85 5873  
E-mail: edward.osullivan@metoffice.com

#### Bristol Channel

Captain Austin P. Maytham PMO  
Met Office Titan House  
Cardiff Bay Business Centre  
Lewis Road, Ocean Park  
CARDIFF CF24 5BS  
Tel: +44-29 2045 1323  
Fax: +44-29 2045 1326

#### East England

Captain John Steel PMO  
Met Office  
8 Tower Quays, Tower Road  
BIRKENHEAD CH41 1BP  
Tel: +44-1482 867226  
Fax: +44-1482 868116  
E-mail: pmohull@metoffice.com

#### Northwest England

Colin B. Attfield PMO  
Met Office  
8 Tower Quays, Tower Road  
BIRKENHEAD CH41 1BP  
Tel: +44-151 6490541  
Fax: +44-151 6490547  
E-mail: pmoliverpool@metoffice.com

#### Scotland (N)

Iain Hendry  
Offshore Adviser Met Office  
Davidson House, Campus 1  
Aberdeen Science & Technology Park  
Bridge of Don ABERDEEN AB22 8GT  
Tel: +44-1224 407557  
Fax: +44-1224 407568  
E-mail: ihendry@metoffice.com

### Scotland (S)

Tony Eastham PMO  
Met Office Saughton House,  
Broomhouse Drive EDINBURGH EH11  
3XQ  
Tel: +44-131 528 7305  
Fax: +44-131 528 7345  
E-mail: pmoedinburgh@metoffice.com

### Southeast England

Captain Harry H. Gale PMO  
Met Office Trident House  
21 Berth, Tilbury Dock  
TILBURY, Essex RM18 7HL  
Tel: +44-1375 859970  
Fax: +44-1375 859972  
E-mail: pmolondon@metoffice.com

### Southwest England

Captain James M. Roe PMO  
Met Office 8 Viceroy House  
Mountbatten Business Centre  
Millbrook Road East  
SOUTHAMPTON SO15 1HY  
Tel: +44-23 8022 0632  
Fax: +44-23 8033 7341  
E-mail: pmosouthampton@metoffice.com

### 美國 U.S.A.

#### Headquarter

Robert A. Luke  
Voluntary Observing Ship Program Leader  
National Data Buoy Center  
Building 3203, Room 305B  
Stennis Space Center, MS 39529-6000  
Tel: 228 688 1457  
Fax: 228 688 3923  
E-mail: Robert.luke@noaa.gov

#### Anchorage

Larry Hubble  
National Weather Service Alaska Region  
222 West 7th Avenue #23, Anchorage  
AK 99513-7575  
Tel: 907 271 5135  
Fax: 907 271 3711  
E-mail: larry.hubble@noaa.gov

#### Baltimore

James Saunders, PMO  
National Weather Service, NOAA  
Maritime Center I, Suite 287  
2200 Broening Highway,  
Baltimore, MD 21224-6623  
Tel: 410 663 4709  
Fax: 410 663 4713  
E-mail: james.saunders@noaa.gov

#### Charleston

Tim Kenfick, PMO  
NOAA Coastal Services Center  
2234 South Hobson Avenue  
Charleston, SC 29405-2413  
Tel: 843 740 1281  
Fax: 843 740 1289  
E-mail: timothy.kenfick@noaa.gov

#### Dickinson

Chris Fakes, PMO  
National Weather Service, NOAA  
Houston Area Weather Office  
1620 Gill Road,  
Dickinson, TX 77539-3409  
Tel: 281 534 2640 Ext.277  
Fax: 281 337 3798  
E-mail: chris.fakes@noaa.gov

**Honolulu**

Derek LeeLoy  
Ocean Services Program Coordinator  
National Weather Service Pacific Region  
HQ Grosvenor Center, Mauka Tower  
737 Bishop Street, Suite 2200  
Honolulu, HI 96813-3201  
Tel: 808 532 6439  
Fax: 808 532 5569  
E-mail: derek.leeloy@noaa.gov

**Jacksonville**

John Warrelmann, PMO  
National Weather Service, NOAA  
13701 Fang Road  
Jacksonville, FL 32218-7933  
Tel: 904 741 5186 Ext. 117  
Fax: 904 741 0078  
E-mail: john.warrelmann@noaa.gov

**Kodiak**

Richard Courtney  
National Weather Service, NOAA  
600 Sandy Hook Street, Suite 1  
Kodiak AK 99615-6814  
Tel: 907 487 2102  
Fax: 907 487 9730  
E-mail: richard.courtney@noaa.gov

**Long Beach**

Robert Webster, PMO  
National Weather Service, NOAA  
501 West Ocean Blvd., Room 4480  
Long Beach, CA 90802-4213  
Tel: 562 980 4090  
Fax: 562 980 4089  
E-mail: bob.webster@noaa.gov

**New Orleans**

Paul Campbell, PMO  
National Weather Service, NOAA  
Louis Armstrong International Airport  
Box 20026  
New Orleans, LA 70141  
Tel: 504 589 4839  
E-mail: paula.campbell@noaa.gov

**New York**

Jim Luciani, PMO  
National Weather Service, NOAA  
110 Lower Main Street, Suite 201  
South Amboy, NJ 08879-1367  
Tel: 732 316 5409  
Fax: 732 316 7643

**Norfolk**

Peter Gibino, PMO  
National Weather Service, NOAA  
4034-B Geo. Wash. Mem. Highway  
Yorktown, VA 23692-2724  
Tel: 757 877 1692  
Fax: 757 877 9561  
E-mail: peter.gibino@noaa.gov

**Oakland**

Robert Novak, PMO  
National Weather Service, NOAA  
1301 Clay Street, Suite 1190N  
Oakland, CA 94612-5217  
Tel: 510 637 2960  
Fax: 510 637 2961  
E-mail: bob.novak@noaa.gov

**Port Everglades**

Robert Drummond, PMO  
National Weather Service, NOAA  
2550 Eisenhower Blvd, Suite 312  
P.O. Box 165504  
Port Everglades, FL 33316  
Tel: 954 463 4271  
Fax: 954 462 8963  
E-mail: robert.drummond@noaa.gov

**Romeoville**

Amy Seeley, PMO  
National Weather Service, NOAA  
333 West University Dr.  
Romeoville, IL 60441-1804  
Tel: 815 834 0600 Ext. 269  
Fax: 815 834 0645  
E-mail: amy.seeley@noaa.gov

**Seattle**

Patrick Brandow, PMO  
National Weather Service, NOAA  
7600 Sand Point Way, N.E.  
BIN C15700  
Seattle, WA 98115-6349  
Tel: 206 526 6100  
Fax: 206 526 4571 or 6094  
E-mail: pat.brandow@noaa.gov

**Valdez**

Debra Russell, OIC  
National Weather Service, NOAA  
Box 427 Valdez, AK 99686-0427  
Tel: 907 835 4505  
Fax: 907 835 4598  
E-mail: debra.russell@noaa.gov

## 香港志願觀測船舶通訊

### Newsletter for Hong Kong Voluntary Observing Ships

二零零四年七月（第二十期）(Issue No.20) July 2004

聯絡通信	Correspondence
<p>歡迎各位投稿或提出意見和建議。來函請寄：</p> <p>香港天文台 九龍彌敦道 134 號 A 香港天文台台長收 (經辦人：海港氣象主任)</p> <p>聯絡電話： (852) 2926 3113 圖文傳真： (852) 2311 9448 電郵地址： hkpmo@hko.gov.hk</p>	<p>We welcome your articles, comments and suggestions. Please send them to:</p> <p>Director of the Hong Kong Observatory, Hong Kong Observatory, 134A Nathan Road, Kowloon, Hong Kong. (Attn. : Port Meteorological Officer)</p> <p>Telephone : (852) 2926 3113 Fax : (852) 2311 9448 E-mail address : hkpmo@hko.gov.hk</p>